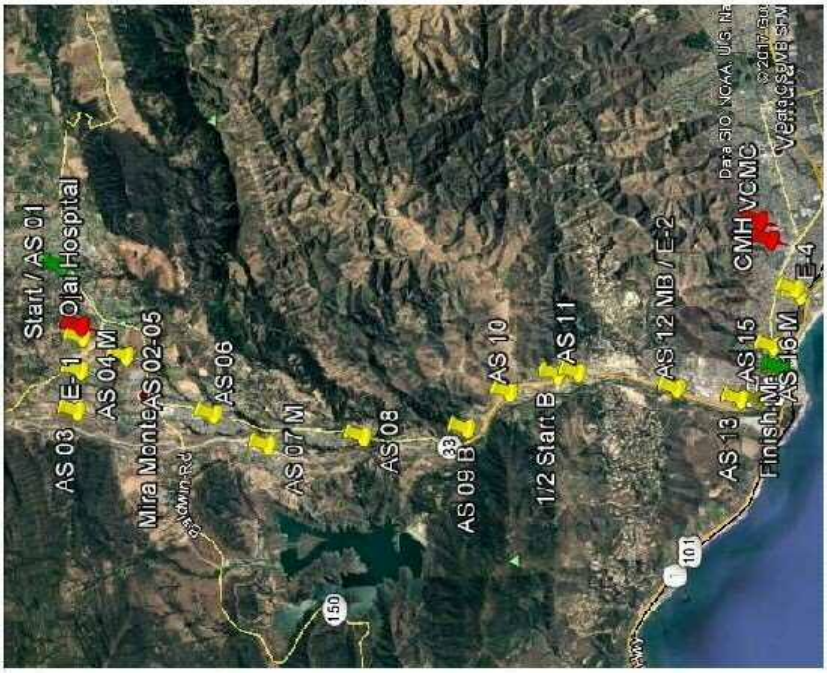
The KEYER
K6MEP
Ventura County Amateur Radio Club
October 2017
Year 81 Issue 10

Ventura Marathon
October 22 from
Ojai Libby Park to
the Ventura Pier



The Ventura County Amateur Radio Club, K6MEP will hold its next regular meeting at 7:30 PM on Friday the 13th of October 2017 at the **Ventura County Port Authority** 1603 Anchors Way Ventura, CA 93001 . 34°15.11' N, 119°16.01' W, grid DM04IG. (see map pg 18). Board Meeting precedes the General Meeting. This is DUES Night please bring your membership to date for the coming year. Dues must be current for next month's election.
Presentation Topic this month is **"K42 Morse Code Keyer/Decoder Kit Build."** by Ben Holmes, AK6BH

K6MEP
Ventura County Amateur Radio Club
PO Box 2103, Oxnard, CA 93034-2103

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K6MEP KEYER -- The VCARC Journ

First Class Mail

HAM RADIO:
It works when nothing else does!

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The Inside Story

The ***KEYER*** is published monthly by K6MEP, the Ventura County Amateur Radio Club, Inc. as a means of providing club members the minutes from K6MEP's monthly general membership meetings, the monthly board of directors meetings, a calendar of events and articles of interest on amateur radio.

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Material submitted for inclusion is encouraged. Submit material on IBM(tm) PC diskettes, USB sticks, or by e-mail to kg6bov@arrl.net. MS Word, WordPerfect or ASCII is preferred. Send all submissions directly to the club mailing address at **K6MEP, PO Box 2103 Oxnard, CA 93034-2103** or deliver to the editor at any time mutually convenient.

K6MEP holds general membership meetings at 7:30 PM on the 2nd Friday of each month at The Ventura Port Authority building, 1603 Anchors Way Ventura 93001

Dues are $20 per year.

Message from the President

Greetings Members:

Its that time folks - time to renew our VCARC membership for the next year. The official period is from November to November, so we like to get as many paid before the November meeting as possible to avoid a last minute rush. Your dues must be paid to vote in the November election. Speaking of the election, nominations will be taken during the October meeting.

There are a few pieces of test gear available from the recent donation. Please contact me about that.

This month Ben Holmes, AK6BH, will present his project the "K42 Morse Code Keyer/Decoder Kit Build." Please join us to see how this is working for Ben.

Bring your ideas and energy to the Friday Oct. 13 meeting - See you all there!

Joe Krigbaum K6NE
President, VCARC

Secretary's Column and Meeting Minutes

Ventura County Amateur Radio Club Inc. Club Meeting
Meeting Date : 9/8/17

GENERAL MEMBERSHIP MEETING MINUTES
MEETING ADDRESS : Ventura Port District Building 1603 Anchors Way, Ventura
ATTENDANCE : Listed on Roll Check-In Sheet
CALL TO ORDER
Established quorum (25% of Voting Members = 6)
ANNOUNCEMENTS
MEETING MINUTES
Open meeting with Pledge of Allegiance
Introductions.
A short conversation with John Kitchens NS6X, who is a likely replacement for ARRL Section Manager, following the sudden news of resignation of Jim K6IYK the elected Section Manager.

OLD BUSINESS
NEW BUSINESS

GENERAL MEMBERSHIP MEETING
Presentation topic on Satellite operations, by Phil Cohen WA6BUZ

(Cont pg 21)

Selected October Contests & Special Events

The following contests and special events caught your editor's eye. This is by no means a complete listing. Please see QST or the ARRL website (www.arrl.org) for any details and QSL information.

10/01/2017 | Alaska Purchase 150th Anniversary Oct 1-Oct 31, 0001Z-2359Z, KL7RST, Kotlik, AK. North Country DX Association. 14.280. Certificate & QSL. North Country DX Association. Join Alaskan operators to celebrate the 150th Anniversary of the 1867 Alaska Purchase and formation of the Department of Alaska. Special recognition will be given for stations who contact us on October 18th which is the day Alaska became part of the USA. For Information contact Donn Gallon KL7DG. Contact info is on the KL7DG **qrz.com**. I will be at the NW DX convention in Spokane in Aug. www.qrz.com/db/kl7rst

10/01/2017 | Catch Me if You Can Oct 1-Oct 31, 1800Z-0000Z, KA9PIJ, Madison, IN. Novice Ham License Operator. Certificate. https://www.facebook.com/groups/177538235926244

10/01/2017 | City of Le Havre 500th Anniversary Oct 1-Oct 8, 0000Z-2359Z, TM500LH, Le Harve, FRANCE. Le Havre Wireless Society. All bands, all modes. Certificate. F6KOH. www.qrz.com/db/tm500lh

10/01/2017 | Coal Mining History of Guernsey County Oct 1, 1600Z-2200Z, W8VP, Cambridge, OH. Cambridge Amateur Radio Association. . QSL. Cambridge Amateur Radio Association. Please send SASE with QSL request. www.w8vp.org

10/02/2017 | The First Year Anniversary of the Historic Chicago Cubs 2016 World Series of Baseball Victory Oct 2-Oct 8, 1300Z-2300Z, W9C, Orland Park, IL. Metro DX Club. Certificate & QSL. W9C will operate at various times and on various bands and modes. For a baseball team to finally win the World Series after over 100 years of disappointment, this amazing achievement should be celebrated by all sports fans. A nice certificate of accomplishment for your contact and QSL card are available. Please indicate your QSO date, time, frequency, mode and signal report. A certificate to be returned by email may be requested by sending an email to n9tk@comcast.net. To receive a printed certificate and QSL, please send a self-addressed 9x12 envelope with three (3) ounces postage attached. www.metrodxclub.com

10/05/2017 | Celebrating the Biblical Festival of Sukkot 2017 (Feast of Tabernacles) Oct 5-Oct 15, 1000Z-2000Z, K5S, Poteet, TX. Kosher Hams Radio. 40 20 15 and 10 meters, general portion of bands as conditions allow. CW SSB RTTY Digital. QSL. Times will vary, mostly between 9 AM - 12 noon, and 4 PM - 7 PM local time CDT. www.facebook.com/KosherHamsRadio or **ak5fmtx.wixsite.com/kosher-hams-radio**

10/06/2017 | Alabama Butter Bean Festival Oct 6-Oct 8, 2300Z-2100Z, KN4BBD, Pinson, AL. Pinson Valley High School Amateur Radio Club. QSL. Pinson Valley High School ARC. The world's largest pot of baked beans confirmed record by Guinness World Records. pinsonvalleyhigh.jefcoed.com/students/clubs_and_organizations

10/06/2017 | Forty Mile Point Lighthouse 120th Anniversary Oct 6, 1600Z-2000Z, W8L, Rogers City, MI. Presque Isle County Amateur Radio Club. Certificate. **www.qrz.com/db/w8l**

10/06/2017 | Tour du Teche VIII Canoe Race Oct 6-Oct 8, 1300Z-2300Z, W5DDL, Lafayette, LA. Acadiana Amateur Radio Association, Inc. (AARA). QSL. NA5Q. This is a 135 mile canoe race between Port Barre, Louisiana and Berwick, Louisiana. www.w5ddl.org/clubsite

10/06/2017 | Warren Fall Festival Oct 6-Oct 9, 0000Z-2359Z, W1W, New Milford, CT. Northville Amateur Radio Association. QSL. NARA. The Warren Fall Festival is a fund raiser for the Warren CT volunteer fire company. NARA volunteers to operate the special event station. www.na1ra.org

October 7-8 EME - 50 to 1296 MHz Objective: To work as many amateur stations as possible via the earth-moon-earth path on any authorized amateur frequency above 50 MHz.

10/07/2017 | 10th Annual Valley Disaster Preparedness Fair Oct 7, 1700Z-2100Z, K6D, Granada Hills, CA. Southern California Preparedness Foundation. QSL. Annual Disaster Preparedness Fair showcasing ham radio communication capabilities and providing preparedness information. No cost to attendees. Will also have a GOTA station. **ValleyDisasterFair.com**

10/07/2017 | Albuquerque International Balloon Fiesta Oct 7-Oct 15, 0000Z-2359Z, W5B, Albuquerque, NM. High Desert Amateur Radio Club. QSL. **www.nm5hd.com**

10/07/2017 | Dempsey Challenge Bicycle Race Oct 7-Oct 8, 1200Z-2300Z, N1D, Auburn, ME. Androscoggin Amateur Radio Club. Certificate & QSL. Androscoggin ARC, W1NPP. **www.w1npp.org**

10/07/2017 | Great Lakes Hamcon at The Michigan International Speedway Oct 7-Oct 8, 1300Z-1800Z, K8MIS, Brooklyn, MI. Great Lakes Amateur Radio Association. QSL. South Lyon Area Amateur Radio Club. **k8mis@glhamcon.org** or **glhamcon.org**

10/07/2017 | Lester Dent - Doc Savage Oct 7-Oct 8, 1200Z-2359Z, W0D, Macon, MO. Macon County Amateur Radio Club. Certificate. Macon County ARC. On October 7th and 8th, the Macon County Amateur Radio Club will operate the Lester Dent-Doc Savage Mystery Special Event W0D, in Macon, MO. The purpose of the Special Event is to honor of the Birthday of Lester Dent, one of the most prolific writers of Pulp Fiction, and an Amateur Radio Operator. It is also the 84th "Birthday" of his creation, the first "Superhero" Doc

Savage. A colorful certificate will be provided to those that contact the Special Event Station and send a QSL including a # 10 SASE to the Macon County Amateur Radio Club. You can check out the certificate on the MCARC website **www.maconcountymissouriarc.org**

10/07/2017 | Michelson-Morley Experiment 130th Anniversary Oct 7, 1200Z-2200Z, W8M, Cleveland, OH. Case Amateur Radio Club of Case Western Reserve University. Certificate & QSL. Case Amateur Radio Club, W8EDU. Case Amateur Radio Club will be on the air discussing the Michelson-Morley Experiment with amateur radio operators around the world. Alumni are welcome to visit, get on the air with W8EDU, and learn about the Michelson-Morley Experiment. Tours of Glennan amateur radio station will also be available. **w8edu.wordpress.com**

10/07/2017 | RT 66 Military Vehicle Convoy On-The-Air Oct 7-Oct 14, 0000Z-2359Z, K4A, Ocala, FL. Sun Country Amateur Radio Society. As conditions allow bands from 6M - 160M; SSB, CW & PSK31. QSL. KA4WJB. QSL direct with SASE only. Multiple station event. Members of the Military Vehicle Preservation Association -MVPA- will re-trace the "original" 1926 Route 66 used as a Military Transport Corridor from Chicago, IL to Santa Monica, CA, to move troops, supplies & equipment throughout much of the country. We honor their RT 66 Military Vehicle Convoy with (4) SES call signs, K4 "M", K4 "V", K4 "P", K4 "A". Each station will ONLY operate during (1) of the (4) weeks of the 2,448 mile month-long journey. The Convoy will use Ham Radio APRS tracking technology to follow their cross-country journey. See the host website to "track" the convoy and for all of the details about the RT 66 Military Vehicle Convoy On-The-Air Event. **ConvoyOnTheAir.org**

10/07/2017 | Va. Beach Military Aviation Museum's Biplanes & Triplanes Airshow Oct 7-Oct 8, 1300Z-1600Z, W4UG, Virginia Beach, VA. Virginia Beach Amateur Radio Club. Certificate. Biplanes & Triplanes Airshow - Celebrating the Va. Beach Military Aviation Museum's Airshow display and air demonstration of aircraft used in WWI. Certificate Other frequencies and modes may be used depending on circumstances. Additional and updated information will be made Available on **W4UG.com**. **www.w4ug.com**

10/08/2017 | 240th Anniversary of Towamencin Encampment Oct 8-Oct 16, 0000Z-2359Z, W3T, Harleysville, PA. WV2M. QSL. 240th anniversary of the saving of the Towamencin Encampment that occurred from October 8 to October 16, 1777. Frequencies include SSB 75, 40 and 20 meters; CW 40 and 20 meters; PSK 40 and 20 meters. Website: www.w3t.info

10/09/2017 | Frankford Radio Club 90th Anniversary Oct 9-Oct 22, 0000Z-2359Z, W3F, Alburtis, PA. Frankford Radio Club. QSL. **gofrc.org/frctest** ;

10/09/2017 | NAQCC 13th Anniversary Celebration Oct 9-Oct 15, 0000Z-2359Z, N1A-N0A, Many. North American QRP CW Club. Certificate & QSL. KK1X. www.naqcc.info/main_n3a.html

10/11/2017 | 100 Year Celebration of Kalamazoo Chapter of the American Red Cross Oct 11, 1600Z-2300Z, W8VY, Kalamazoo, MI. Kalamazoo Amateur Radio Club. 7232 KC LSB. QSL. Kalamazoo Amateur Radio Club. Station QSL will show the original club's call, 8VY. **w8vy.org**

10/12/2017 | Frank Grosso K2MLB Memorial Oct 14, 1400Z-2000Z, W2EF, Essex Fells, NJ. West Essex Amateur Radio Club. Certificate. West Essex ARC. West Essex ARC members will operate W2EF in honor of Franklyn (Frank) Grosso, K2MLB, and other members that are now silent keys. www.wearc.org

10/13/2017 | Eisenhower Special Event Oct 13-Oct 22, 0000Z-2359Z, W5I, Sherman, TX. Grayson County Amateur Radio Club. QSL. Grayson County ARC. Grayson County ARC hosts the Eisenhower Special Event which celebrates the birth of Dwight Eisenhower who was born in Dension, TX on October 14, 1890. www.graysoncountyarc.com

10/13/2017 | NASA Johnson Space Center Amateur Radio Club 50th Anniversary Oct 13-Oct 15, 1700Z-2200Z, W5RRR, Houston, TX. NASA Johnson Space Center Amateur Radio Club. QSL. Tanner Jones W9TWJ. **w5rrr.org**

10/14/2017 | K3IEC Fulton County PA on the Air! Oct 14, 1600Z-2100Z, K3IEC, Mechanicsburg, PA. Cumberland Amateur Radio Club. QSL. KB3PQT. Celebrating the history and heritage of the Cumberland County. www.radioclub-carc.com

10/14/2017 | Lewisville Fire Department Open House Oct 14, 1500Z-2000Z, W5LVC, Lewisville, TX. Lewisville Amateur Radio Association. Certificate. Lewisville Amateur Radio Association. Celebrating the 17th Annual Lewisville (TX) Fire Department Open House. **w5lvc.com**

10/14/2017 | Make A Wish, Trial Blaze Challenge Oct 14, 1100Z-2200Z, WA4TRS , Fairview, NC. The Road Show Amateur Radio Club. Certificate. The Road Show ARC. **wa4trs@gmail.com**

10/14/2017 | The 98th anniversary of the Historic Lanesfield One-Room Schoolhouse Oct 14, 1500Z-2000Z, KS0KS, Edgerton, KS. Santa Fe Trail Amateur Radio Club. QSL. SFTARC. This limestone structure is now operated as a living museum. www.sftarc.org

10/14/2017 | USS Midway Museum Ship Special Event: Establishment of the United States Navy on 13 OCT 1775 Oct 14, 1600Z-2300Z, NI6IW, San Diego, CA. USS Midway (CV-41) Museum Ship. QSL. USS Midway CV-41.

10/15/2017 | Ft Massac Encampment Oct 15-Nov 1, 0000Z-2359Z, K9E, Metropolis, IL. City of Metropolis. Certificate & QSL.

October 16-20 School Club Roundup Objective: To exchange QSO information with club stations that are part of an elementary, middle, high school or college. Non-school clubs and individuals are encouraged to participate. Sponsored by the ARRL, its Hudson Division Education Task

Force and and the Long Island Mobile Amateur Radio Club (LIMARC) to foster contacts with and among school radio clubs.

10/20/2017 | 60th Jamboree On The Air (JOTA) Oct 20-Oct 22, 0000Z-2359Z, K6J, Auburn, CA. Sierra Foothills Amateur Radio Club. QSL. Sierra Foothills ARC. See website for additional modes, frequencies, and information. https://www.qrz.com/db/k6j

10/21/2017 | Brymbo Heritage Project SES Oct 21, 1000Z-1700Z, GB1BSW, Brymbo, Wrexham, WALES. Wrexham Amateur Radio Society. QSL. Eifion Parry - Wrexham Amateur Radio Society, Brymbo Sports & Social Club, Brymbo, Wrexham, WALES. www.wrexham-ars.com

10/21/2017 | USS Midway MUseum Ship Special Event: Boy Scouts of America (BSA) Jamboree-on-the-Air (JOTA) Oct 21-Oct 22, 1600Z-2300Z, NI6IW, San Diego, CA. USS Midway (CV-41) Museum Ship. QSL. USS Midway CV-41. Will be operating 1600Z to 2300Z each day

10/31/2017 | 500th Anniversary of the Reformation Oct 31-Nov 1, 1630Z-0200Z, K7L, Sierra Vista, AZ. Immanuel Lutheran Church Chapter of the Lutheran Amateur Radio Support Network. QSL. LARSN-ILC. To celebrate the 500th Anniversary of the Reformation, the Immanuel Lutheran Church chapter of the Lutheran Amateur Radio Support Network is operating a special event station at the church's Fall Festival, 31 October 2017, 0930-1900 MST. www.ilsv.org/larsn-ilc

10/31/2017 | Halloween Howl Oct 31, 0001Z-2359Z, K4TLH, Tallahassee, FL. Tallahassee Amateur Radio Society. QSL. K4TLH. QSL upon request. www.k4tlh.net

10/31/2017 | Martin Luther / 500 Years Reformation 1517<>2017 Oct 31, 0000Z-2359Z, OE500ML, Schalchen, AUSTRIA EUROPE. none. QSL. OE5RBO. All logged stations will receive a card via bureau with any action needed, so you do not need to send a card to get one. https://www.qrz.com/db/oe500ml

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PVRC Repeater System Update

9/24/2017
Hello All,

I visited the Sulphur Mtn repeater site today to finish some tasks from two weeks ago. The tasks related to general maintenance and cleanup along with some performance relates items.

The general maintenance items completed were;
The building, in-wall Network cables were all terminated and their wall plates installed.
All of the Network Cabling was cleaned up and trimmed to their proper lengths
50% of the temporary RF cabling was replaced with proper lengths and terminations. Next trip will see this task completed.
A keyboard/mouse and display was permanently installed and connected to the Winlink computer.
All of the 6v golf cart backup batteries were low on water. The eight batteries took over 5 gallons of water.
The 220 packet Winlink/digipeater was put on the proper frequency of 223.58MHz.

Initial performance testing with W6RH showed good connectivity.
This station should provide good connectivity to Ventura County.

The performance related items were;
Two weeks ago a lower gain antenna was installed at the top of the tower and today the 145.200 repeater was moved to that antenna.
I am looking for feedback from stations to to see if their performance has changed one way or another.
It is hoped that this will improve coverage in some of the shaded areas from Sulphur Mth.
The 147.060 (standalone) repeater was temporally installed on Sulphur Mtn and is currently using the high gain antenna.

Thank you all for your time.
Have a great evening.

Paul...
WD6EBY

Upcoming FCC Exam Sessions

ON EXAM DAY BRING THE FOLLOWING ITEMS:

1. A legal photo ID (driver's license, passport).
2. When no photo ID is available, two forms of identification must be presented:
   a. non-photo ID/driver's license (some states still have them)
   b. birth certificate (must have the appropriate seal)
   c. social security card
   d. library card
   e. utility bill, bank statement or other business correspondence that specifically names the person; or a postmarked envelope addressed to the person at his or her current mailing address as it appears on the Form 605.
3. Students may bring any of the above items and/or a school ID, minor's work permit, report card, or a legal guardian may present a photo ID.
4. Bring your Social Security Number (SSN) or your FCC issued Federal Registration Number (FRN). VEC's are required by FCC to submit either your SSN or your FRN number with your license application form. If you prefer not to give your SSN, then you may use your FCC issued FRN, if you have one. For instructions on how to register your SSN with the FCC and receive a FRN, visit the FCC's FAQ page and the FCC's registration instructions page.
5. If applicable, bring the original and a photocopy of your current Amateur Radio license and any Certificates of Successful Completion of Examination (CSCE) you may hold from previous exam sessions. The photocopy(s) will not be returned.
6. Two number two pencils with erasers and a pen.
7. A calculator with the memory erased and formulas cleared is allowed. You may not bring any written notes or calculations into the exam session. Slide rules and logarithmic tables are acceptable, as long as they're free of notes and formulas. Cell phone must be silenced or turned off during the exam session. The phones' calculator function may not be used.
8. Bring a check, a money order or cash to cover the exam session fee(s). Check the ARRL VEC's current exam fee.

License Preparation and Sample Test Sites

http://aa9pw.com/radio/

http://hamexam.org/

http://twit.tv/show/ham-nation -- Weekly Webcast

http://www.AmateurLogic.tv -- **Weekly Webcast**

http://www.eham.net/exams/

http://www.Facebook.com/HamStudy

http://www.hamradiolicenseexam.com -- cost / on-line subscription

http://www.hamstudy.org (ICOM sponsored site) **requires free registration**

http://www.qrz.com/ht/ -- requires free registration

http://www.radioexam.org/

Upcoming FCC Exam Sessions

10/04/2017 7:30 PM (Walk-ins allowed) Sponsor: Baldwin Hills ARC VEC: ARRL/VEC Contact: Edward L. Walker (323) 394-1818 www.barc.us Email: EDLWALKER@PACBELL.NET Location: Round Table Pizza 4330 Redondo Beach Blvd Torrance CA 90504-1031

10/07/2017 **Time:** 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James W. Laage (818) 368-8710 **Email:** cllaage@verizon.net **Location:** Northridge Fashion Ctr 9400 Shirley Ave Northridge CA 91324-2413

10/07/2017 10:00 AM (Walk-ins allowed) Test 1st Saturday Every Month Sponsor: AA6WC/Ali Hassan VEC: ARRL/VEC Contact: Ali Hassan (323) 758-0565 Email: aa6wc@prodigy.net Location: VE's Residence 6043 3rd Avenue Los Angeles CA 90043-2618

10/07/2017 **Time:** 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James W. Laage (818) 368-8710 **Email:** cllaage@verizon.net **Location:** Northridge Fashion Ctr 9400 Shirley Ave Northridge CA 91324-2413

10/07/2017 Time: 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James W. Laage (818) 368-8710 **Email:** cllaage@verizon.net **Location:** Valley Presbyterian Hospital (Health Education Center) 15107 Vanowen Street Van Nuys CA 91405-4542

10/08/2017 Time: 8:30 AM (Walk-ins allowed) Sponsor: Conejo Valley ARC VEC: ARRL/VEC Contact: Jeffrey

M. Reinhardt (818) 706-3853 Email: jmreinhardt@sbcglobal.net Location: Ventura County Sheriff's E County Station, Community Room 2101 E Olsen Rd Thousand Oaks CA 91360-6861 Betw 23 Hwy & Reagan Library

10/14/2017 **Time:** 7:00 AM (No walk-ins) **Sponsor:** PAPA **VEC:** Greater LA VEC **Contact:** Norman M. Goodkin (818) 222-7893 **Email:** hamclass@goodkin.net **Location:** Lulu's Restaurant 16900 Roscoe Blvd Van Nuys CA 91406-1101

10/14/2017 Time: 8:00 AM (No walk-ins) Sponsor: SMRA Emergency Repeater Network VEC: ARRL/VEC Contact: George W. Kreider (805) 754-2677 **Email: kn6la@verizon.net Location: Betty Plotkin Center, American Red Cross** 834 / 836 Calle Plano, Camarillo, Ca 93012; 34d 11m 55.21s N / 119d 00m 28.30s W ; Directions: From US 101, exit Pleasant Valley / Santa Rosa Road, southbound on Pleasant Valley turning left at Pancho Rd. approx. 3/4 mile on Pancho Rd. Left on Pancho at Calle Bolero; Red Cross is 1/2 mile directly ahead.

10/14/2017 Time: 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James R. Stoker (310) 775-5613 **Email:** jstoker@it.ucla.edu **Location:** Huntington Hospital 100 W Colorado Blvd Pasadena CA 91105-3010 Wingate Bldg East conf. Room; Check in Booth E parking Lot www.arrllax.org (ed. Note – Huntington Hospital is 100 W CALIFORNIA)

10/14/2017 Time: 7:00 AM (No walk-ins) **Sponsor:** PAPA **VEC:** Greater LA VEC **Contact:** Norman M. Goodkin (818) 222-7893 **Email:** hamclass@goodkin.net **Location:** Lulu's Restaurant 16900 Roscoe Blvd Van Nuys CA 91406-1101

10/14/2017 Time: 9:00 AM (Walk-ins allowed) Sponsor: South Bay ARC VEC: ARRL/VEC Contact: Joseph M. Lanphen (310) 328-0817 Email: jlanphen@ca.rr.com www.w6sba.org for details Location: Torrance Memorial Med Center 3330 Lomita Blvd Rm A, 2nd Flr, West Tower Torrance CA 90505-5002

10/15/2017 Time: 3:00 PM (Walk-ins allowed) **Sponsor:** Independent Radio Club **VEC:** ARRL/VEC **Contact:** Mark G. Moore (818) 957-1699 **Email:** n6mgm@arrl.net **Location:** Eagle Rock City Hall 2035 Colorado Blvd Eagle Rock CA 90041-1238

10/21/2017 Time: 8:30 AM (Walk-ins allowed) **Sponsor:** Downey ARC **VEC:** ARRL/VEC **Contact:** Steve J. Grudzinski (951) 674-4699 **Email:** sgrudzinski1@verizon.net **Location:** Fire Station #1 12222 Paramount Blvd (1/2 Mile N Of Imperial Hwy) Downey CA 90242-3537

10/21/2017 12:00 PM (Walk-ins allowed) **Sponsor:** Pine Mountain ARC **VEC:** ARRL/VEC **Contact:** Irene M. Smith-Quick (661) 242-1345 **Email:** irenequick@gmail.com **Location:** Frazier Park Library 3732 Park Dr

10/22/2017 Time: 2:30 PM (No walk-ins) **Sponsor:** Goodkin Ham Radio Classes **VEC:** Greater LA VEC **Contact:** Norman M. Goodkin (818) 222-8793 **Email:** hamclass@goodkin.net **Location:** Agoura Hills/Calabasas Community Center 27040 Malibu Hills Rd Agoura Hills CA 91301-5332

10/27/2017 Time: 7:00 PM (Walk-ins allowed) **Sponsor:** WA6IRC Radio club **VEC:** ARRL/VEC **Contact:** Mark G. Moore (818) 842-1786 **Email:** n6mgm@outlook.com **Location:** Millie's rest 16840 Vanowen St Van Nuys CA 91406-4539

10/28/2017 Time: 10:00 AM (Walk-ins allowed) **Sponsor:** Crescent Bay VE Grp/W6TRW ARC **VEC:** ARRL/VEC **Contact:** Scott Swanson (310) 459-0337 **Email:** k6pyp@arrl.net **Location:** Northrop Grumman 1 Space Park Blvd (Bldg S Cafeteria) Parking lot off Marine Blvd Redondo Beach CA 90278-1001

10/29/2017 Time: 7:30 AM (No walk-ins) **Sponsor:** Calabasas/LH Sheriff's Station **VEC: Greater LA VEC Contact:** Norman M. Goodkin (818) 222-7893 **Email: hamclass@goodkin.net Location:** Lost Hills Sheriff's Station (Assembly Room) 27050 Agoura Rd Agoura Hills CA 91301-5332

11/04/2017 10:00 AM (Walk-ins allowed) Test 1st Saturday Every Month Sponsor: AA6WC/Ali Hassan VEC: ARRL/VEC Contact: Ali Hassan (323) 758-0565 Email: aa6wc@prodigy.net Location: VE's Residence 6043 3rd Avenue Los Angeles CA 90043-2618

11/04/2017 Time: 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James W. Laage (818) 368-8710 **Email:** cllaage@verizon.net **Location:** Valley Presbyterian Hospital (Health Education Center) 15107 Vanowen Street Van Nuys CA 91405-4542

11/05/2017 Time: 7:30 AM (No walk-ins) **Sponsor:** Calabasas/LH Sheriff's Station **VEC: Greater LA VEC Contact:** Norman M. Goodkin (818) 222-7893 **Email: hamclass@goodkin.net Location:** Lost Hills Sheriff's Station (Assembly Room) 27050 Agoura Rd Agoura Hills CA 91301-5332

11/11/2017 Time: 7:00 AM (No walk-ins) Pre-Reg Required **Sponsor:** The PAPA System **VEC:** Greater LA VEC **Contact:** Norman M. Goodkin (818) 222-7893 **Email:** hamclass@goodkin.net **Location:** Dinah's Family Restaurant 6521 S Sepulveda Blvd Los Angeles CA 90045-1508

11/11/2017 Time: 8:30 AM (No walk-ins) **Sponsor:** Santa Barbara ARC **VEC:** ARRL/VEC **Contact:** Darryl Widman (805) 969-2326 **Email:** kf6di@sbarc.org **Location:** County Health Care Services 300 N San Antonio Road Santa Barbara CA 93110-1370 Southwest corner of bldg

11/11/2017 Time: 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James R. Stoker (310) 775-5613 **Email:** jstoker@it.ucla.edu **Location:** Huntington Hospital 100 W Colorado Blvd Pasadena CA 91105-3010 Wingate Bldg East conf. Room; Check in Booth E parking Lot www.arrllax.org (ed. Note – Huntington Hospital is 100 W CALIFORNIA)

11/18/2017 Time: 8:00 AM (No walk-ins) Sponsor: Santa Clarita ARC VEC: Greater LA VEC Contact: Ronald B. Klein (661) 259-0948 Email: rklein46@roadrunner.com

Location: Santa Clarita Valley Senior Center 22900 Market St Santa Clarita CA 91321-3608

11/25/2017 Time: 10:00 AM (Walk-ins allowed) **Sponsor:** Crescent Bay VE Grp/W6TRW ARC **VEC:** ARRL/VEC **Contact:** Scott Swanson (310) 459-0337 **Email:** k6pyp@arrl.net **Location:** Northrop Grumman 1 Space Park Blvd (Bldg S Cafeteria) Parking lot off Marine Blvd Redondo Beach CA 90278-1001

12/02/2017 **10:00 AM (Walk-ins allowed) Test 1st Saturday Every Month Sponsor: AA6WC/Ali Hassan VEC: ARRL/VEC Contact: Ali Hassan (323) 758-0565 Email: aa6wc@prodigy.net Location: VE's Residence 6043 3rd Avenue Los Angeles CA 90043-2618**

12/02/2017 **Time:** 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James W. Laage (818) 368-8710 **Email:** cllaage@verizon.net **Location:** Valley Presbyterian Hospital (Health Education Center) 15107 Vanowen Street Van Nuys CA 91405-4542

12/02/2017 Time: 8:00 AM (No walk-ins) **Sponsor:** SMRA Emergency Repeater Network VEC: ARRL/VEC **Contact:** George W. Kreider (805) 754-2677 **Email:** **kn6la@verizon.net** **Location:** Betty Plotkin Center, American Red Cross 834 / 836 Calle Plano, Camarillo, Ca 93012; 34d 11m 55.21s N / 119d 00m 28.30s W ; Directions: From US 101, exit Pleasant Valley / Santa Rosa Road, southbound on Pleasant Valley turning left at Pancho Rd. approx. 3/4 mile on Pancho Rd. Left on Pancho at Calle Bolero; Red Cross is 1/2 mile directly ahead.

12/06/2017 **7:30 PM (Walk-ins allowed) Sponsor: Baldwin Hills ARC VEC: ARRL/VEC Contact: Edward L. Walker (323) 394-1818 www.barc.us Email: EDLWALKER@PACBELL.NET Location: Round Table Pizza 4330 Redondo Beach Blvd Torrance CA 90504-1031** 12/09/2017 **Time:** 11:00 AM (Walk-ins allowed) **Sponsor:** ARES LAX **VEC:** ARRL/VEC **Contact:** James R. Stoker (310) 775-5613 **Email:** jstoker@it.ucla.edu **Location:** Huntington Hospital 100 W Colorado Blvd Pasadena CA 91105-3010 Wingate Bldg East conf. Room; Check in Booth E parking Lot www.arrllax.org (ed. Note – Huntington Hospital is 100 W CALIFORNIA)

12/09/2017 **Time: 9:00 AM (Walk-ins allowed) Sponsor: South Bay ARC VEC: ARRL/VEC Contact: Joseph M. Lanphen (310) 328-0817 Email: jlanphen@ca.rr.com www.w6sba.org for details Location: Torrance Memorial Med Center 3330 Lomita Blvd Rm A, 2nd Flr, West Tower Torrance CA 90505-5002**

12/10/2017 **Time: 8:30 AM (Walk-ins allowed) Sponsor: Conejo Valley ARC VEC: ARRL/VEC Contact: Jeffrey M. Reinhardt (818) 706-3853 Email: jmreinhardt@sbcglobal.net Location: Ventura County Sheriff's E County Station, Community Room 2101 E Olsen Rd Thousand Oaks CA 91360-6861 Betw 23 Hwy & Reagan Library**

12/16/2017 12:00 PM (Walk-ins allowed) **Sponsor:** Pine Mountain ARC **VEC:** ARRL/VEC **Contact:** Irene M. Smith-Quick (661) 242-1345 **Email:** irenequick@gmail.com **Location:** Frazier Park Library 3732 Park Dr

12/18/2017 **Time:** 8:30 AM (Walk-ins allowed) **Sponsor:** Downey ARC **VEC:** ARRL/VEC **Contact:** Steve J. Grudzinski (951) 674-4699 **Email:** sgrudzinski1@verizon.net **Location:** Fire Station #1 12222 Paramount Blvd (1/2 Mile N Of Imperial Hwy) Downey CA 90242-3537

12/30/2017 **Time:** 10:00 AM (Walk-ins allowed) **Sponsor:** Crescent Bay VE Grp/W6TRW ARC **VEC:** ARRL/VEC **Contact:** Scott Swanson (310) 459-0337 **Email:** k6pyp@arrl.net **Location:** Northrop Grumman 1 Space Park Blvd (Bldg S Cafeteria) Parking lot off Marine Blvd Redondo Beach CA 90278-1001

Trivia for October 2017

DID YOU KNOW?

1. The first kite was flown in China around 400 BC?

2. Israel built the first military drone?

3. Magic is possibly the oldest of the performing arts?

de Dana KG6WXE

Upcoming HamFests & Conventions

San Diego Hamfest 2017

Start Date: 10/07/2017 **End Date:** 10/07/2017 **Location:** Lakeside Rodeo Grounds 12584 Mapleview Street Lakeside, CA 92040 **Website:** http://www.lakesidearc.org/sdhamfest/sdhamfest.php **Sponsor:** Lakeside Amateur Radio Club **Type:** ARRL Hamfest **Talk-In:** 146.55 **Public Contact:** Paul Rios , KC6QLS 12207 Valhalla Drive Lakeside, CA 92040 Phone: 619-593-9445 **Email:** kc6qls@cox.net

Kingman HamFest

Start Date: 10/07/2017 **End Date:** 10/08/2017 **Location:** Centennial Park 3333 Harrison Street Kingman, AZ 86401 **Website:** http://www.kingmanhamfest.com **Sponsor:** Mohave Amateur Radio Club **Type:** ARRL Hamfest **Talk-In:** 147.240 (PL 123.0 +Shift) **Public Contact:** John Euler , KF7WTZ PO Box 9696 Fort Mohave, AZ 86427 Phone: 702-686-2544 **Email:** kf7wtz@gmail.com

Arizona State Convention (Copa Fest 2017)

Start Date: 10/28/2017 **End Date:** 10/28/2017 **Location:** UltraStar Multi-Tainment Center @ Ak-Chin Circle 16000 North Maricopa Road Maricopa, AZ 85238 **Website:** http://copahams.org **Sponsor:** Maricopa Amateur Radio Association **Type:** ARRL Convention **Talk-In:** 447.725 (PL 100.0) **Public Contact:** Bob Howard , W8RH 35881 West Catalan Street Maricopa, AZ 85138 Phone: 520-709-6176 **Email:** w8rh@live.com

Oro Valley Amateur Radio Club Hamfest

Start Date: 11/11/2017 **End Date:** 11/11/2017 **Location:** Marana Middle School 11279 West Grier Road Marana, AZ 85653 **Website:** http://orovalleyarchamfest.com **Sponsor:** Oro Valley Amateur Radio Club **Type:** ARRL Hamfest **Talk-In:** 146.62, 444.1, 147.32 (PL 156.7) **Public Contact:** Steven Wood , W1SR 6219 North Via de la Tortola Tucson, AZ 85718 Phone: 520-906-1204 **Email:** W1SR@arrl.net

HARKFEST

Start Date: 11/18/2017 **End Date:** 11/18/2017 **Location:** North Ranch Escapees RV Park 30625 South Highway 89 Congress, AZ 85332 **Website:** http://harkaz.org **Sponsor:** Hassayampa Amateur Radio Klub **Type:** ARRL Hamfest **Talk-In:** 146.58 **Public Contact:** Duane Grooms , KD0KYK 30736 South Wandering Way Congress, AZ 85332 Phone: 602-814-9603 **Email:** djgrooms@yahoo.com

Superstition SuperFest 2017

Start Date: 12/02/2017 **End Date:** 12/02/2017 **Location:** Mesa Community College 1833 West Southern Avenue Mesa, AZ 85201 **Website:** https://superstitionsuperfest.org **Sponsor:** Superstition Amateur Radio Club **Type:** ARRL Hamfest **Talk-In:** 147.12, 162.2 (PL 100.0) **Public Contact:** Dale Schmidt , N7QJK 156 North Hawes Road, Space 74 Mesa, AZ 85207 Phone: 480-986-3352 **Email:** info@superstitionsuperfest.org

Thunderbird Hamfest 2018

Start Date: 01/13/2018 **End Date:** 01/13/2018 **Location:** Northwest Community Church 16615 North 43rd Avenue Phoenix, AZ 85001 **Website:** http://www.w7tbc.org **Sponsor:** Thunderbird Amateur Radio Club **Type:** ARRL Hamfest **Talk-In:** 146.700 -600 KHz (PL 162.2) or 446.150 -5 MHz (PL 100) **Public Contact:** Walter Reinert , NJ8G 5546 West Sweetwater Avenue Glendale, AZ 85304 Phone: 602-938-8219 **Email:** hamfest@w7tbc.org

QuartzFest Convention

Start Date: 01/21/2018 **End Date:** 01/27/2018 **Location:** Road Runner BLM La Paz Valley Road (53rd Street N) Quartzsite, AZ 85346 **Website:** http://quartzfest.org **Sponsor:** QuartzFest Planning Committee **Type:** ARRL Convention **Talk-In:** 146.55 FM Simplex **Public Contact:** Kristyn Weed , KR1SS 1519 North Camino Emiliano Tucson, AZ 85745 Phone: 520-730-1806 **Email:** kristynweed@gmail.com

Arizona Section Convention (Yuma Hamfest)

Start Date: 02/16/2018 **End Date:** 02/17/2018 **Location:** Yuma County Fairgrounds 2520 East 32nd Street Yuma, AZ 85364 **Website:** http://www.yumahamfest.org/ **Sponsor:** Yuma Amateur Radio Hamfest Organization **Type:** ARRL Convention pending Executive Committee approval **Talk-In:** 146.780 (PL 103.5) **Public Contact:** Jeff Weeks , W7JLW 10337 South Fairway Drive Yuma, AZ 85367 Phone: 928-941-0131 **Email:** jeff@weekspcservices.com

A Collection of Comments and Remarks on the Recent ARRL SW Division Convention

Friday -- Tour of USS Iowa (BB61) – opportunity to operate from Iowa's Radio Room – Sound-powered phones, sheet-metal racks, Bullseye's, Battlelanterns, CCOL's, R2D2, stacks of rack-mounted R-1051's and the Coke Machine. VC hams also on the tour were Rod KA6GSU and XYL Lilly, Jim KB6JI, Pat KM6HHC, CJ KK6AYY.

Sat – Various Sessions attended
Secrets of End-Fed Wire Antennas

Build Ham Radio GO-Boxes – Granted this was a commercial/vender presentation, but the Gator-Box based event boxes and Tackle-Box based Field boxes we have been building and using here in Ventura County are better than what the vender was showing (but I may have a "little" regional preference)

EMCOMM-ARES in the SW ARRL Div – Good roundtable discussion

EMComm -- Future Direction Gov-Affiliated Ham Groups (LA County) – Introductory presentations by representatives from each of a myriad of groups and agencies providing emergency communications and support to the 8+ million who live south of the Santa Monica Mountains

ARRL Forum – General question and answer session led by SW Div Director Dick Norton N6AA

Sat Lunch Speaker -- Ned Stearns AA7A -- DX-pedition to South Georgia and South Sandwich Islands – Think of the worst winter storm weather you have been in and make it worse – and Ned was there during the "nice" weather. And operating. And bringing all their gear in and taking it out afterward.

Sat Dinner Speaker -- Dr.Tamitha Skov -- Space Weather

Sun Breakfast Speaker -- Bob Allison WB1GCM / ARRL Asst Lab Manager -- Future Directions of Amateur Radio Equipment – Bob gets to play with (and test/evaluate) the new toys (what a job !)

Joe Partlow W6JWP noted

Due to another commitment, I was only able to attend on Sunday. Not the day to go unless you want to get in on the unclaimed prizes raffle. The swapmeet was a bust with only about five sellers. I understand that this is the first one that's been held at this location for a while so maybe it will get better with time.

I sat in on 2 sessions one on the Dayton hamfest in its new location. The speaker gave a very honest report and, unless something is done about some of the things she reported on, I don't see myself going anytime soon.

The other talk was on the state of the ARRL LAX section. Good things and bad things, but in general it sounded like the normal stuff we're all seeing. A little on the boring side.

The highlight was the unclaimed prizes raffle. I didn't win anything but it was fun seeing the people who where still there win stuff, even the guy who won four times! I hope he bought a lottery ticket on the way home.

Zak Cohen N6PK noted

The convention had excellent vendor participation and i was able to get some parts that I needed. It was good to see some of the new equipment out from the major vendors. There were times when the schedule for the seminars left multiple interesting sessions meeting at the same time.

Tim Wheeler K6POI noted

The best thing for me, by far, is getting with folks I haven't seen in a long while... people with which I can share an immediate spiritual bond. A warmth of acceptance is usually generated between me and friends friends of friends as well. There's something more than just OK with the world during the time that I'm at one of these things... immersed in shaking hands, playing with new toys, new ideas and new people... I was renewed, or at least freshened up a bit, at the Church of Radio!

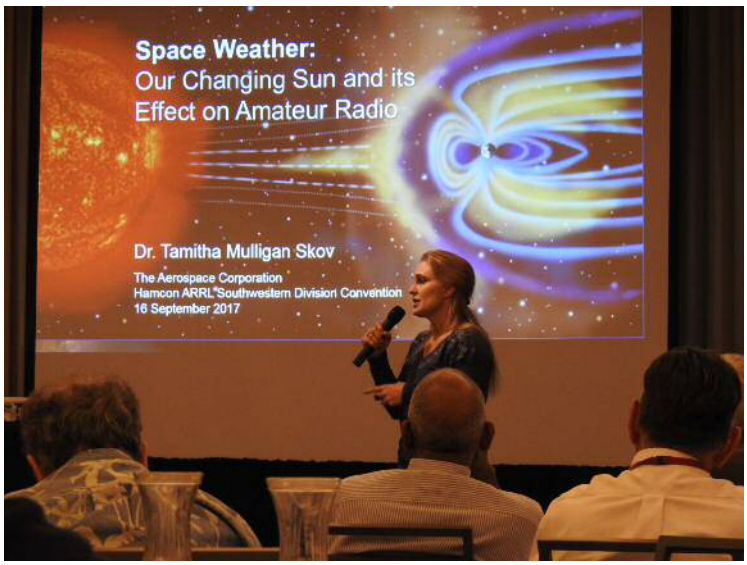
The recent Torrance gathering of the SouthWestern Division faithful was certainly enjoyable...but HamCons are still getting smaller year by year.

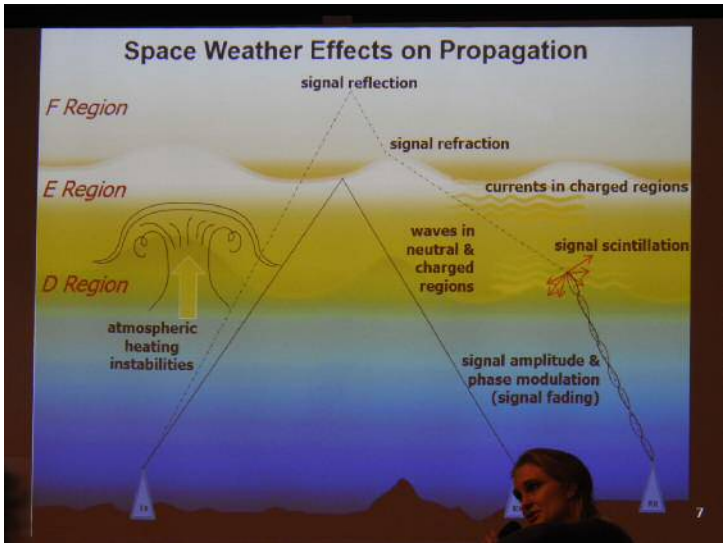
But how to grow our attendance?? More reasonably priced toys and/or a new technology that captures imaginations and sets us on fire again... would do it for me.

I know I'd salute an HF-SDR that was cheaper while being as powerful and feature-rich as what's out today... Flex-like capabilities that would not make a bulge in my coat pocket... nor deplete the bulge of my wallet.

That'll do it for me!

May Radio be with you... and vice versa!





K6MEP Net Script

"Is this frequency in use, or is there any emergency or priority traffic?"

"Hearing none , the following is a Q-S-T."

"This is ____, net control station for the Ventura County Amateur Radio Club Net."

"This is a directed, open net for all radio amateurs, sponsored by K6MEP, the Ventura County Amateur Radio Club. This net begins each Monday evening at Eight Thirty P-M local time, first on Two—Eight—Decimal—Four—Zero—Zero megahertz, and then will Q-S-Y to One—Four—Six—Decimal—Nine—Seven—Zero megahertz.

All amateurs are welcome to check in. A roundtable will follow roll call. A ragchew session may follow the formal net."

"K6MEP, the Ventura County Amateur Radio Club, meets at Seven Thirty P-M on the Second Friday of each month at the Ventura County Port Authority 1603 Anchors Way Ventura, CA 93001."

"The next meeting date is_____" (From the newsletter calendar section).

"A roll-call of club members will be followed by a request for late, missed and visitor check-ins."

(Roll Call) ******** "Any late, missed, or visitor check-ins? Please call K6MEP"

(Roundtable) ******** "Any last comments?"

Ten Meter Closing: — "Control is now transferred to One—Four—Six Decimal—Nine—Seven—Zero megahertz. All net members are invited to Q-S-Y. This is _____."

Two Meter Closing: — "Good evening to you all, this net is closed at _____. (Time) We would like to thank WB6YQN for the use of the repeater for our net"

"73, This is _____."

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K6MEP CALENDAR

October 2017

13: Regular Monthly Club Meeting at 7:30pm. K6MEP Board meeting precedes the club meeting at 7:00pm Annual Dues are Due

21-22: BSA JOTA Jamboree on the Air

22: Ventura Marathon -- ARES Support – contact Rick KQ6NO kq6no@arrl.net or Rob W6RH w6rh@arrl.net

31: Halloween – Watch out for roaming Goblins and SuperHeros

November 2017

10: Regular Monthly Club Meeting at 7:30pm. K6MEP Board meeting precedes the club meeting at 7:00pm Election Night for 2018 Club Officers

11: Veterans' Day – Remember their Sacrifice

11: Oxnard H.S. Band Contest – ARES Support – contact Hovan KI6BQL ki6bql@arrl.net or Quent KF6FQN kf6fqn@hotmail.com

23: Thanksgiving – Enjoy the Turkey !

December 2017

8: DecemberFest Dinner Meeting

9: Camarillo Christmas Parade – ARES Support – contact Ted W6TEL w6tel@arrl.net

10: Santa to the Sea Half-Marathon – ARES Support – contact Stewart KG6BOV kg6bov@arrl.net

12-20: Chanukah

24-25: Christmas Eve & Day Watch out for renegade reindeer

31: New Year's Eve / Straight Key Night

To join Ventura Amateur Radio Club, Inc.
send form, along with $20.00 anual dues to P.O. Box 2103, Oxnard CA 93034-2103

Name_____ Call_____ E-mail_____

Street_____ City_____ State___ ZIP_____

Date_____ New Member__ Renewing__ ARRL? yes__ no__ Telephone_____

Below line for club staff processing only.

Enter processing dates:

Treasurer_____ Secretary_____ Membership Chairman_____ Roster entry_____

Membership certificate_____ New member letter_____

Measuring Antenna Gain

Steve J. Noll, WA6EJO

At our July meeting Steve KI6BSQ presented a discussion on antennas. In it he mentioned the Friis equation. At the end of the presentation I mentioned that I used that equation for coming up with the source and reference antennas for the antenna range at the West Coast VHF conferences that this club sponsored in the early 1990's. This got me interested in using that equation again to measure the gain of some inexpensive WiFi antennas sold on eBay.

Friis Equation:

$$\frac{P_r}{P_t} = G_t G_r \left(\frac{\lambda}{4\pi R} \right)^2 \quad \text{or} \quad \frac{\text{Power received}}{\text{Power transmitted}} = (\text{Gain receive antenna}) \times (\text{Gain transmit antenna}) \left(\frac{\text{Wavelength}}{4 \times \text{Pi} \times \text{Distance}} \right)^2$$

Where the antenna gain in dBi is calculated by $10 \log_{10} G$.
The powers are in Watts or milliwatts, just so they are the same units.
Wavelength and Distance (between the two antennas) are in the same units.

By the way, always suspect any antenna gain spec where it isn't given in either dBi or dBd. If it is listed as just dB, someone is trying to fool you. dBi is dB gain over an isotropic radiator, an antenna that radiates equally in all directions like a spherical pattern. Such is actually an imaginary antenna as one that does that can't be physically made. dBd is gain relative to a perfect dipole antenna. A dipole is assumed to have 2.15 dBi of gain. It has more gain than a spherical antenna because it is focusing energy in some directions and rejecting signals from other directions. To convert: dBi = dBd + 2.15 and dBd = dBi – 2.15.

If the antennas are identical it's simple to determine their gain using the Friis equation, otherwise an antenna of known gain is needed to compare an unknown antenna to. Besides two identical antennas what is needed is a stable signal source with enough power, a power meter capable of measuring sub-milliwatt levels, a tape measure, and two antenna supports. The beauty of making two antennas and measuring their gain with the Friis equation is that if you want to set up an antenna measurement range you will end up with the needed source antenna and a reference antenna of known gain to make measurements of unknown gain antennas.

I chose these antennas to measure because their construction looks questionable and I doubted their gain claim. They are 2.4 GHz WiFi antennas made in China and are cheap, selling for about $10 each. These are Yagis (Yagi Uda arrays, more properly) made of aluminum, 17 elements, with gain claim of 25 dBi. I bought a pair from a eBay dealer in the US for $20.55 delivered. Each of the 15 directors are the same length which is not how Yagis are designed - there should be a taper. Element centering is poor. I suspected that the 25 dBi claim was a serious exaggeration.

The SWR Measurements

I started by measuring the SWR of each antenna with a Daiwa CN-801 SWR meter that covers 900 MHz to 2.5 GHz. However, when I went to check out the meter with a dummy load it indicated a 1.2:1 SWR. I tried several high quality microwave-rated loads, Weinschel and Narda, with the same result. Further testing cast doubts on the accuracy of this meter so I changed to testing with a directional coupler, a 2 GHz to 4 GHz Microlab/FXR. A 10 dB Narda Microline attenuator provided isolation for the Agilent E4421B signal generator. A HP 8566B spectrum analyzer was used for the reflected signal detector. Average SWR for antenna A was 7.1:1, 6.3:1 for antenna B. SWR is horrible! In the same setup a 50-ohm load measured an average of 28 dB return loss, or 1.08:1 SWR, thus validating the measurement method.

Further indication of a serious problem with these antennas was the fact that placing my hand on the driven element resulted in almost no change in the SWR readings. That's a huge red flag! The supplied coax cable could be the cause? It is 57-inches long and not marked as to the type. If it was RG-58 it should be about 1.5 dB loss at 2.4 GHz, not enough to account for the problem. If it was very high loss it could account for no effect when touching the driven element, but it would also probably result in a better SWR, like a dummy load.

Resistance measurements found continuity between the coax shield and center conductor and the loop driven element and the boom. That in itself is not unusual, a UHF loop yagi driven element can also be at DC ground with its metal boom. Out of curiosity I remove one of the two screws holding the driven element assembly on the boom. This electrically isolated the driven element from the boom as the screw appeared to pierce the coax shield. The result was a dramatic improvement in SWR, although still not great. Antenna A now 3.1:1, antenna B now 2.8:1.

Then the second (front) screw was also removed. SWR is now looking usable at 2.4:1 each antenna. The problem may be due to the heads of the screws being quite close to the driven element loop.

Next the first (rear) screw is reinstalled grounding the driven element, the second (front) screw removed. Even better at 2:1 for each antenna. I note that with antenna B it mattered how tightly the rear screw was driven in. Perhaps it is shorting more than the shield.

The Gain Measurements

The frequency for these antennas is specified to be 2400 MHz with a 100 MHz bandwidth, so a test frequency of 2400 MHz was used (12.49 cm wavelength.) Transmit power was generated with an Agilent E4421B signal generator and a Mini-Circuits ZQL-2700MLNW+ amplifier, and some higher power measurements were made with a WiFi power amp. Forward and reflected transmit power were measured using a directional coupler, the difference being what power was actually transmitted. Received power was measured with a HP 432A power meter with a HP 478A thermistor mount. The results:

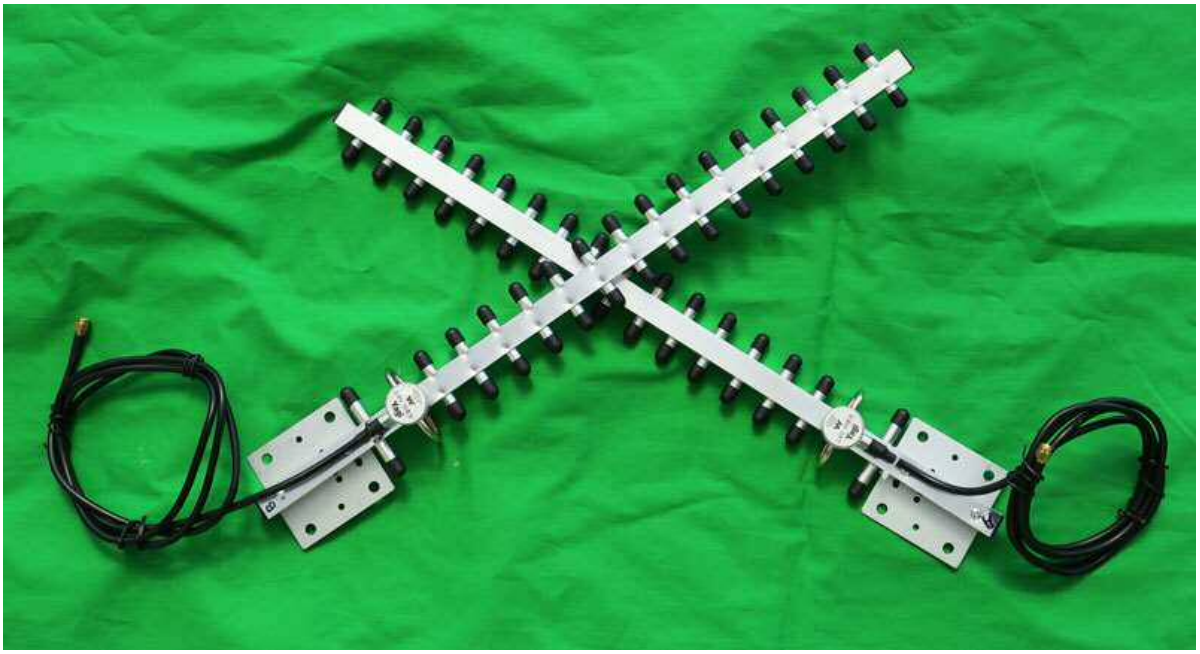
RUN	DISTANCE	POLARIZATION	TRANSMIT POWER (mW)	RECEIVED POWER (mW)	GAIN (dBi)	
1	4m	Hor	135	0.06	9.3	Unmodified antennas
2	4m	Vert	135	0.03	7.8	Unmodified antennas
3	4m	Hor	284	0.03	6.2	Unmodified antennas
4	4m	Vert	284	0.03	6.2	Unmodified antennas
5	4m	Hor	214	.001	-0.6	Antenna B flaky
6	4m	Vert	214	.0015	0.27	Antenna B flaky
7	4m	Vert	214	.002	0.9	Antenna B flaky
8	4m	Hor	214	.001	-0.6	Antenna B flaky
9	4m	Hor	327	.001	-1.5	Antenna B flaky
10	4m	Vert	327	.04	6.4	Antenna B modified
11	4m	Hor	327	.05	7.0	Antenna B modified
12	4m	Hor	335	.035	6.1	Antenna B modified
13	4m	Vert	335	.04	6.4	Antenna B modified

When using antenna B as the receive antenna I noticed that its gain became extremely unstable with the slightest movement of its coax cable near the driven element assembly. One side of the round PVC box housing the driven element dipole loop and coax connection is against the boom. Removing this driven element assembly from the boom gained access to the open side of the driven element junction box and the wiring inside which was potted with something like hot glue. I picked most of the glue out and milled open the opposite end of the box to gain better view of what was inside.

The center conductor of the feedline coax goes to one end of the loop element, the shield to the other end. In addition there is a short length of a very small coax with one end unterminated, the other end has its center conductor connecting to the end of the loop that the feedline center conductor connects to, the shield of the tiny coax connects to the other end of the loop element, same as the feedline shield. I assume this small coax serves as a capacitor for matching purposes. I did not see any obvious connection issue, although they are soldering the coaxes to the aluminum tubing that forms the driven element loop. Soldering to aluminum could be a problem. One thing that was obvious though, is one of the two mounting screws is long enough to pierce the feedline coax shield, and possibly the center conductor. Two such sheet metal screws fasten the driven element assembly to the square aluminum boom. After the potting material was picked out I could see that one of the mounting screws was touching the coax shield, and extremely close to touching the coax center conductor, possibly even touching it. Both sheet metal screws were replaced with nylon screws which fixed the problem. Both Yagis were checked with a horn source antenna and found to be reasonably close to each other in gain.

Conclusions? As delivered, if there is no intermittent as developed in one of the antennas that I received, the gain of these Yagis is about 7 dBi at best, not 25 dBi! Since my purchase in August the seller reduced the gain claim in the eBay listing to 16 dBi. I guess someone called him on it. However, even that lower gain spec is for properly designed well-built antennas, not these. SWR as delivered is in the order of 6:1 to 7:1! The SWR can be improved substantially if one has the needed instrumentation for assistance. Those old enough may remember when Japan was known for very low-quality manufacturing. Japan eventually figured it out and became a top manufacturer of high quality items (i.e.: think cameras & cars.) China is in its junk-producing phase as evidenced by these antennas and some other (but not all) eBay items. How long until they figure out how to become a high quality and honest manufacturer?

Friis calculator: https://www.random-science-tools.com/electronics/friis.htm
Measuring SWR with directional couplers: https://www.youtube.com/watch?v=iBK9ZIx9YaY
Converting Return Loss to SWR: https://www.amphenolrf.com/vswr-conversion-chart/



Emergency and Volunteer Training

Some excellent emergency and volunteer training is available through the American Red Cross of Ventura County, FEMA and the American Radio Relay League.

Red Cross Courses

The following is a list of locally available Red Cross courses and a current schedule of classes over the next two months. Enroll by calling the Red Cross Chapter House at 805-987-1514 Ext 320 leaving your name, course code and telephone number. If you are interested in a class not currently scheduled call to be placed on a waiting list for the next scheduled date.

Note: The classes **Fulfilling Our Mission** and **Introduction to Disaster Services** are required for all Red Cross classes if you are not currently registered as a Red Cross Volunteer.

For training class registration, call: 805-987-1514 Ext 320.

Course schedule and descriptions:

http://www.arcventura.org/DSCourseDescriptions.html

http://www.arcventura.org/contact_us.html

COLLABORATING TO ENSURE EFFECTIVE SERVICE DELIVERY(ARC3089-4)
COMMUNITY SERVICES OVERVIEW (ARC 3068-1)
DISASTER ASSESSMENT (ARC 3067-1)
DISASTER HEALTH SERVICES: OVERVIEW (3076-1F)
DISASTER HEALTH SERVICES SIMULATION (ARC 3076-2F)
DISASTER MENTAL HEALTH SERVICES (ARC 3077-1F)
DISASTER MENTAL HEALTH: AN OVERVIEW (ARC 3077-2)
DISASTER WELFARE INQ.:CONNECTING YOUR COMMUNITY(ARC 3085-1)
DISASTER WELFARE INQUIRY SIMULATION (ARC 3085-2)
EMERGENCY OPS CENTER/INCIDENT COMMAND LIAISON (ARC 3089-5)
ERVs: READY, SET, ROLL (ARC 3068-4)
FAMILY SERVICES: PROVIDING EMERGENCY ASSISTANCE (ARC 3072-1)
FINANCIAL STATISTICAL INFORMATION MANAGEMENT (ARC 3078-2)
HUMAN RESOURCES IN DISASTER (ARC 3087-3F)
LOGISTICS: AN OVERVIEW (ARC 3087-1)
LOGISTICS SIMULATION (ARC 3071-2)
MANAGING TOTAL DIVERSITY
MASS CASUALTY DISASTER (ARC 3079 1F)
PUBLIC AFFAIRS IN DISASTER 1 (ARC 3080 1F)
SAFE FOOD HANDLING WORKSHOP
SHELTER OPERATIONS (ARC 3068-11)
SHELTER SIMULATIONS (ARC 3068-12)
WORKING WITH TOTAL DIVERSITY

Scheduled Red Cross Classes

For training class registration, call: 805-987-1514 Ext 320.
Please try to register for classes a week before the class is being offered

The following free **FEMA Independent Study Courses** are recommended. There are several other FEMA courses available; see the other courses at **http://training.fema.gov/is**

IS-5.a **An Introduction to Hazardous Materials** - (10/31/2013)
IS-10.a **Animals in Disasters: Awareness and Preparedness** - (10/2/2015)
IS-11.a **Animals in Disasters: Community Planning** - (10/2/2015)
IS-15.b **Special Events Contingency Planning for Public Safety Agencies** - (10/31/2013)
IS-20.16 **Diversity Awareness Course 2016** - (2/8/2016)
IS-21.16 **Civil Rights and FEMA Disaster Assistance** - (1/4/2016)
IS-26 **Guide to Points of Distribution** - (8/11/2010)
IS-27 **Orientation to FEMA Logistics** - (10/31/2013)
IS-29 **Public Information Officer Awareness** - (10/31/2013)
IS-35.16 **FEMA Safety Orientation 2016** - (1/4/2016)
IS-36 **Multi-hazard Planning for Childcare** - (10/31/2013)
IS-42 **Social Media in Emergency Management** - (10/31/2013)
IS-75 **Military Resources in Emergency Management** - (2/25/2011)
IS-100.b **Introduction to Incident Command System, ICS-100** - (10/31/2013)
IS-111.a **Livestock in Disasters** - (10/31/2013)
IS-144 **Telecommunicators Emergency Response Taskforce (TERT) Basic Course** - (10/31/2013)
IS-200.b **ICS for Single Resources and Initial Action Incidents** - (10/31/2013)
IS-230.d **Fundamentals of Emergency Management** - (12/16/2013)
IS-235.c **Emergency Planning** - (12/15/2015)
IS-240.b **Leadership and Influence** - (6/16/2014)
IS-241.b **Decision Making and Problem Solving** - (3/31/2014)
IS-242.b **Effective Communication** - (3/31/2014)
IS-244.b **Developing and Managing Volunteers** - (3/29/2013)
IS-250.a **Emergency Support Function 15 (ESF15) External Affairs: A New Approach to Emergency Communication and Information Distribution** - (5/7/2012)
IS-271.a **Anticipating Hazardous Weather & Community Risk**, 2nd Edition - (10/31/2013)
IS-288.a **The Role of Voluntary Organizations in Emergency Management** - (2/12/2015)
IS-315 **CERT Supplemental Training: The Incident Command System** - (8/13/2013)
IS-317 **Introduction to Community Emergency Response Teams** - (6/26/2014)
IS-320 **Wildfire Mitigation Basics for Mitigation Staff** - (10/31/2013)
IS-322 **Flood Mitigation Basics for Mitigation Staff** - (10/31/2013)
IS-323 **Earthquake Mitigation Basics for Mitigation Staff** - (10/31/2013)
IS-325 **Earthquake Basics: Science, Risk, and Mitigation** - (10/31/2013)
IS-326 **Community Tsunami Preparedness** - (10/31/2013)
IS-366.a **Planning for the Needs of Children in Disasters** - (12/9/2015)
IS-368 **Including People With Disabilities & Others With Access & Functional Needs in Disaster Operations** - (2/20/2014)
IS-393.a **Introduction to Hazard Mitigation** - (10/31/2013)
IS-405 **Overview of Mass Care/Emergency Assistance** - (12/10/2013)
IS-454 **Fundamentals of Risk Management** - (10/31/2013)
IS-546.a **Continuity of Operations Awareness Course** - (10/31/2013)
IS-547.a **Introduction to Continuity of Operations** - (10/31/2013)
IS-700.a **National Incident Management System (NIMS) An Introduction** - (10/31/2013)
IS-775 **EOC Management and Operations** - (8/6/2008)
IS-800.b **National Response Framework, An Introduction** - (10/31/2013)
IS-815 **ABCs of Temporary Emergency Power** - (12/27/2016)
IS-907 **Active Shooter: What You Can Do** - (12/28/2015)
IS-909 **Community Preparedness: Implementing Simple Activities for Everyone** - (10/31/2013)
IS-910.a **Emergency Management Preparedness Fundamentals** - (10/19/2012)
IS-915 **Protecting Critical Infrastructure Against Insider Threats** - (7/10/2013)
IS-916 **Critical Infrastructure Security: Theft and Diversion – What You Can Do** - (10/31/2013)
IS-922 **Applications of GIS for Emergency Management** - (10/31/2013)
IS-951 **DHS Radio Interoperability** - (9/22/2016)

The **ARRL** offers several on-line courses. The courses listed here are recommended for those involved in disaster and emergency service. See these and other courses at the ARRL web site.

Introduction to Emergency Communication EC-001
HF Digital Communications EC-005
PR-101: ARRL Public Relations (EC-015)
Public Service and Emergency Communications Management for Radio Amateurs- EC-016

There are some costs with the ARRL courses but discounts and occasional scholarships are available to ARRL members. See ***www.ARRL.org*** for details and enrollment.

ARES-ACS Frequency Updates

The Tuesday night Ventura County ARES/ACS Net is held on the SMRA ERN South Mt Repeater. Local nets are 7:00 to 7:30 PM; County Net starts at 7:30 on WD6EBY Sulphur Mt. Repeater 145.200 (-) PL 127.3 / 447.580 Mhz(-) PL 141.3

Good Frequencies to have pre-programmed into your radios...

Area 1 Simi Valley – K6ERN 146.805 Mhz (-) PL 100.0
Area 2 Conejo Valley, T. Oaks, Newbury Park – N6JMI 147.885 Mhz (-) PL127.3 BOZO
Area 3 Camarillo, Somis,– K6ERN 147.915 Mhz (-) PL 127.3
Area 4 Oxnard, Port Hueneme, NBVC – WB6YQN 146.970 Mhz (-) PL 127.3
Area 5 Ojai Valley – N6FL 145.400 Mhz (-) PL 114.8
Area 6 Ventura City – K6ERN 147.765 Mhz (-) PL 127.3 Olivas Park / SMRA
Area 7 Santa Paula, Fillmore, Piru – WA6ZSN 146.385 Mhz (+) PL 127.3
Area 8 Moorpark, Santa Rosa Valley – K6ERN 145.460 Mhz (-) PL 127.3
County-Wide – WD6EBY 145.200 (-) PL 127.3
ACS Portable – VCACS/p 144.930/147.585 Mhz PL 127.3

Other Good Area Frequencies ...

AA6DP 147.090 Mhz (+) No PL Catalina
K0AKS 147.150 Mhz(-) PL127.3 TOaks
K6CPT DCS 145.300 Mhz (-) PL100.0 LA DCS
K6CPT DCS 147.270 Mhz (-) PL100.0 LA DCS
K6DCS DCS22 147.225 Mhz (+) PL 94.8 LA DCS
K6ERN 146.880 Mhz (-) PL 127.3 SMRA Red Mt.
K6ERN 147.765 Mhz (-) PL 127.3 Olivas Park / SMRA
K6TZ 146.790 Mhz (-)PL131.8 SBARC
KB6C 147.735 Mhz (-) PL 100.0 Oat Mt / MMRA
N6EVC 146.850 Mhz (-) PL 94.8 Rasnow
N6FDR 145.260 Mhz (-) PL 100.0 Malibu
W6AAX 147.180 Mhz (+) PL 186.2 Verdugo Peak
W6GRG 146.940 Mhz (-) PL 127.3 Simi DSW Repeater
W6YJO 145.180 Mhz (-) PL 131.8 Sta Ynez
WA6FGK 146.640 Mhz (-) PL 127.3 Simi Valley
WA6PPS 147.300 Mhz (-) PL 110.9 L.A.City ACS
WB6OBB 147.000 Mhz (+) PL 131.8 Sta Barbara
WD6EBY 145.420 MHz (-) PL 127.3 Chatsworth Pk

Due to assignment and coordination of several D-Star Repeaters, TASMA, the southern California Two meter amateur frequency coordination body, has had to re-align several frequencies. Among these changes are the channelization (15 KHz spacing) of the 145.5 - 145.6 simplex allocation and reassignment of several frequencies from simplex to other uses.

None of the local Ventura County repeaters are directly affected; however several previous simplex frequencies are now in use either as repeater inputs or outputs. **New County ARES Packet frequency is 145.050 Mhz**;

Ventura County ARES-ACS simplex frequencies have been re-assigned as follows:

Area 1 Simi Valley – 145.510 Mhz (S)
Area 2 Conejo Valley, T.O., Newbury Pk – 146.445 Mhz (S)
Area 3 Camarillo, Somis – 146.550Mhz (S)
Area 4 Oxnard, Port Hueneme, NBVC – 146.595Mhz (S)
Area 5 Ojai Valley – 145.555Mhz (S)
Area 6 Ventura City – 147.510Mhz (S)
Area 7 Santa Paula, Fillmore, Piru – 145.540 Mhz (S)
Area 8 Moorpark – 146.535Mhz (S)
County ARES Simplex – 145.615 Mhz (S)
National Simplex – 146.520Mhz(S)

Ventura County ARES / ACS Emergency Coordinators

ACS RO/ARES DEC: Rob Hansen, W6RH, Email: w6rh@arrl.net
Assist ACS RO/Deputy DEC: Rick Tate, KQ6NO Email: kq6no@arrl.net

Area 1 Simi Valley EC: Steve King, KE6WEZ Email: ke6wez@gmail.com
Area 2 TO, Conejo Valley EC: Zack Cohen, N6PK , Email: n6pk@arrl.net
Area 3 Camarillo, Somis EC: Ted Lansing W6TEL Email: w6tel@arrl.net
Area 4 Oxnard, Hueneme, Mugu EC: Stewart Stone, KG6BOV Email: kg6bov@arrl.net
Area 5 Ojai EC: Wayne Francis, W6OEU Email: w6oeu@arrl.net
Area 6 City of Ventura EC (acting): Grant Mohr, KG6SFW, E-mail gmohr12@hotmail.com
Area 7 Santa Paula, Fillmore, Piru EC: Grant Mohr, KG6SFW, E-mail gmohr12@hotmail.com
Area 8 Moorpark, Santa Rosa Valley EC: Marc Hanley KM6B, Email: km6b@arrl.net

ARRL offers online training for hams who want to participate in the Amateur Radio Emergency Service.

The time for training is before a disaster...not during one.

The former Amateur Radio Emergency Communications (AREC) series of three training courses has been reconfigured into two courses: An introductory course and a course for leaders and managers.

Introduction to Emergency Communication (#EC-001)

Revised in 2011, this is an update of the former Level 1 course. It is designed to provide basic knowledge and tools for hams who want to serve as a Public Service volunteer. It provides an opportunity for non-hams who rely on communications in emergency situations to learn about Amateur Radio and its unique role in emergencies.

The course is offered online using the Moodle learning platform. The *Introduction to Emergency Communication* course has six sections with 29 lesson topics and a 35 question final assessment. Participants should plan on completing the course in approximately 45 hours over a nine week period. This is a mentored course, in which you may work according to your own schedule. Cost is $50 for ARRL members and $85 for non-members.

For start dates, registration deadlines and more visit **www.arrl.org/online-course-catalog**

Public Service and Emergency Communications Management for Radio Amateurs (#EC-016)

Launched in 2010, this course is designed for Amateur Radio operators who will be in leadership and managerial roles, organizing other volunteers to support public service activities and communications emergencies. Participants will learn how radio amateurs prepare to support local community events and, when working in coordination with governmental and emergency response organizations, how to deploy their services. This is a self-study course. For more information and to register visit www.arrl.org/online-course-catalog.

PR-101: ARRL Public Relations (EC-015)

This is a basic training course for PIOs and anyone interacting with the media and promoting Amateur Radio.

This course is designed to give hams a quick overview in public relations activities. It uses the skills of experts in various aspects of public relations to provide volunteer Public Information Officers with the basic skills and expectations that a PIO needs to know to be effective in their home region.

PR-101 covers everything from the basic news release to Web sites and video work.

This course is available--free! – on-line, or can be purchased in CD format from the ARRL store.

Local Area Radio Nets

Weekly Nets

Monday

Cuckoo Net **146.790 Mhz (-) / 131.8 Hz PL** every weekday morning from 7:00 AM to about 8:20 AM

California Rescue ARES Net **7.25 Mhz** MTWThF 8:30 AM

K6MEP / VCARC Club Net -- 8:30 PM **28.400 Mhz USB / 146.970 Mhz (-) / 127.3 PL (WB6YQN repeater)**

Santa Barbara South County ARES net 7:30 p.m. on **146.79 Mhz (-) PL 131.8**.

LA Section ARES Net - HF Every Monday following the VHF/UHF net (~2130 hrs) 1st, 3rd and 4th Monday - **75 meters 3.995 MHz (± 45 kHz)** / 2nd Monday - **10 meters 28.495 MHz**

LA DCS-22 Net -- 1930 Hrs. - **K6DCS - 147.225 MHz (+)** then on **7.235± MHz LSB**

Southern California ACS NET MONDAY AT 2000 HOURS LOCAL TIME ON **3992, 3960 KHz LSB**

Tuesday

Cuckoo Net **146.790 Mhz (-) / 131.8 Hz PL** every weekday morning from 7:00 AM to about 8:20 AM

California Rescue ARES Net **7.250 Mhz** MTWThF 8:30 AM

Ventura County ARES/ACS Nets between 7:00 and 8:00 PM, the Ventura County Amateur Radio Emergency Service / Auxiliary Communications Service holds their local and County-wide nets. Local Nets are by area and normally run from 7:00 to 7:30 PM. The County-wide Net starts at 7:30 PM and normally finishes by 8:00 PM on **WD6EBY** **145.200 (-) / 127.3 PL**

Ventura County ARES-ACS 6 Meter Net -- between 6:00 PM to 7:00 PM K6SMR **52.980 Mhz (-) PL 82.5** SMRA Red Mt

Ventura County ARES-ACS HF Net -- between 6:30 PM to 7:00 PM 40M on **7.235 Mhz LSB +/-** ;

West SB ARES HF Net (1st Tuesday, Monthly) **3822 Khz LSB** 2030 / 8:30 PM

2000 **6-Meter Roundtable** - **50.125 Mhz USB** First Tuesday of each month.

2030 **ATV Net** **146.790 Mhz (-) / 131.8 Hz PL** **K6TZ** repeater

Wednesday --

Cuckoo Net **146.790 Mhz (-) / 131.8 Hz PL** every weekday morning from 7:00 AM to about 8:20 AM

California Rescue ARES Net **7.25 Mhz** MTWThF 8:30 AM

Southern California ACS NET 1000 Hours, 40 Meter Net **7230 KHz**

SMRA Tech Net **146.880 Mhz (-) / 127.3 PL** (SMRA Red Mt) 8:00 PM

SBARC Swap Net **146.790 Mhz (-) / 131.8 Hz PL** K6TZ 2000

Thursday

Cuckoo Net **146.790 Mhz (-) / 131.8 Hz PL** every weekday morning from 7:00 AM to about 8:20 AM

California Rescue ARES Net **7.25 Mhz** MTWThF 8:30 AM

So Cal 6 meter net, **51.940 Mhz – pl 82.5**. 1900-2000 local Thursdays.

Southern Calif 6M SSB Technical Roundtable Net Thursday night at 8:00 PM on **50.2 MHz USB SSB**

SBARC / K6TZ Technical Mentoring Net -- Thursday nights 8:00-9:00 PM **146.790 Mhz (-) / 131.8 Hz PL** **and 224.08 Mhz (-) 131.8 PL** **(linked)**

Friday

Cuckoo Net **146.790 Mhz (-) / 131.8 Hz PL** every weekday morning from 7:00 AM to about 8:20 AM

California Rescue ARES Net **7.250 Mhz** MTWThF 8:30 AM

Saturday

Military Radio Collector Net **180**0 / 6:00PM **3985 Kc +/- AM** **www.mrcgwest.org/mrcg-radio-nets/**

Sunday

Newbie Net 7:00-7:30 pm Sundays; Bozo Repeater **147.885 Mhz (-) / PL127.3**

Rabbit Net 7:00- ?:?? pm Sundays Linked Rabbit repeaters

Meeting Minutes (Cont fm pg 2)

EXECUTIVE BOARD MEETING MINUTES
MEETING ADDRESS : Ventura Port District meeting room 1603 Anchors Way, Ventura
OFFICER ATTENDEES

CALL TO ORDER

7:13 Joe calls brief meeting

MEETING MINUTES
Call for comments on and approval of the minutes. Approved by unanimous show of hands
Joe asked for secretary report, Bob KD6UDA reports 37 members, reminder for dues and time to nominate any officers for the November election.
Treasurers report on bank balances

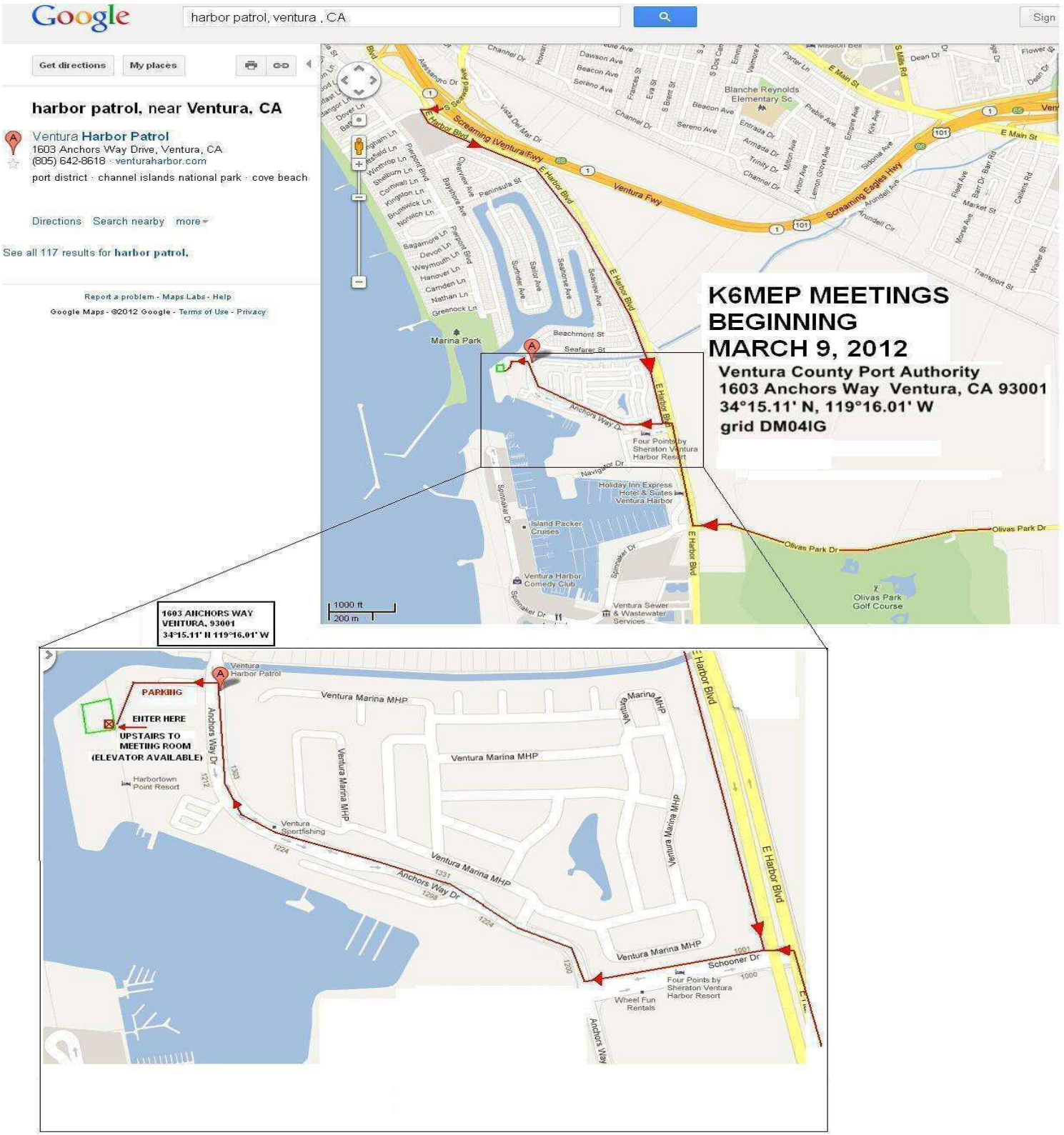
No further board issues, meeting adjourned.

OLD BUSINESS

NEW BUSINESS

COMMENTS

ADJOURN
Board meeting adjourned and proceed to General meeting.


Google
harbor patrol, ventura , CA
Get directions
My places
harbor patrol, near Ventura, CA
Ventura Harbor Patrol
1603 Anchors Way Drive, Ventura, CA
(805) 642-8618 · venturaharbor.com
port district · channel islands national park · cove beach
Directions
Search nearby
more
See all 117 results for harbor patrol,
Report a problem - Maps Labs - Help
Google Maps - ©2012 Google - Terms of Use - Privacy
K6MEP MEETINGS
BEGINNING
MARCH 9, 2012
Ventura County Port Authority
1603 Anchors Way Ventura, CA 93001
34°15.11' N, 119°16.01' W
grid DM04IG
1603 ANCHORS WAY
VENTURA, 93001
34°15.11' N 119°16.01' W
PARKING
ENTER HERE
UPSTAIRS TO
MEETING ROOM
(ELEVATOR AVAILABLE)
Ventura Harbor Patrol
Anchors Way Dr
E Harbor Blvd
Ventura Marina MHP
Harbortown Point Resort
Ventura Sportfishing
Schooner Dr
Four Points by Sheraton Ventura Harbor Resort
Wheel Fun Rentals
Marina Park
Beachmont St
Seafarer St
Navigator Dr
Holiday Inn Express Hotel & Suites Ventura Harbor
Island Packer Cruises
Ventura Harbor Comedy Club
Ventura Sewer & Wastewater Services
Olivas Park Dr
Olivas Park Golf Course
Blanche Reynolds Elementary Sc
Screaming Eagles Hwy
Ventura Fwy
E Main St
1000 ft
200 m

More Professional and Citizen Research Suggests Eclipse Briefly Affected HF Propagation

09/06/2017

Both professional and citizen scientists conducted formal and informal investigations into the effect of the August 21 solar eclipse on HF radio propagation. Nathaniel Frissell, W2NAF, of HamSCI, has said it will take some time to get a more scientific analysis of data compiled during the Solar Eclipse QSO Party. Frissell and others are investigating whether the sudden absence of sunlight during the eclipse — and especially of solar ultra-violet and x-rays — would briefly change the properties of the upper atmosphere. Professional ionospheric researcher Phil Erickson, W1PJE, of the Atmospheric Sciences Group at MIT's Haystack Observatory, said he can say categorically that there was a definite, large, and measurable effect in the ionosphere from the eclipse.

"We saw a 2X reduction in electron density during the eclipse for at least 45 minutes to 1 hour," Erickson told ARRL. "This reduction had direct impacts on HF propagation along the bottom side." Erickson said many models and observations exist from previous eclipses that demonstrate these effects. Erickson said MIT researchers used a "megawatt-class Thomson scatter radar" which can directly measure the plasma state of the ionosphere, including electron density, across a huge area in the eastern US.

"Scientists in the worldwide space physics community will be using these and many other eclipse observations to learn more about our ionosphere, space weather, and its effects on navigation and communication signals including amateur radio," Erickson said. He has shared his data with the HamSCI team.

Bob Reif, W1XP, was in North Carolina where the eclipse totality was about 97%. "I had two radios running multi bands of *WSPR*," he reported. "Lots of data to look at, but what jumped out was that at almost the exact time of maximum coverage of the sun at this location, 160 meters opened for about 30 minutes and then closed down again till the normal gray line. So the D layer responded to the shadow of the moon to some extent."

Gene Greneker, K4MOG, in Georgia told ARRL that his own eclipse experiment "worked out rather well." He set up an RFSpace NetSDR receiver at his location, locked to a 10-MHz GPS standard and tuned to WWV on 15 MHz. "The NetSDR provides in-phase and quadrature components of the WWV signal, which allows relative signal phase to be reconstructed from recorded data," Greneker explained in a more-detailed account.

"Signal phase-vector rotation change was chosen to indicate totality arrival, because phase is very sensitive to any change in propagation path length, possibly caused by ionospheric movement, up or down. Solar presence or absence can cause vertical ionospheric movement."

Greneker recording the phase of the 15-MHz WWV signal from 1800 UTC until 1900 UTC on August 21. "Each time the path length changes by 1 wavelength, there is a 360° change in the phase of the signal," he said. Greneker offset the path of totality to the south, running parallel to the path between WWV in Fort Collins, Colorado and his location in Atlanta.

Greneker assumed that the reflection point off the ionosphere was south of Kansas City, and, he said, the minimum dip in the phase record occurred very close to totality at that location. "At 1809 hours UTC, when the totality point was parallel to the midpoint of the propagation path, the path length increased from zero wavelengths to 157 wavelengths, or 3,140 meters, during the intervening 9 minutes." He reported. As totality moved southeast solar radiation began to increase and the path length decreases as the ionospheric reflecting point moves downward.

Bob Skaggs, KB5RX, told ARRL he spent about 4 hours in the central part of Mission Valley, Montana, listening to conversations on various 20-meter frequencies with a low antenna. "At maximum of the eclipse the propagation went almost to nothing for maybe about 15 or 20 minutes," he said. "As the eclipse resided, signals came back up." Skaggs tried 17 meters for 5 minutes at 1800 UTC and heard "no signals at all."

He also said the local animal population responded to the eclipse as if evening were approaching.

Space Weather Prediction Center Says Solar Phenomena May Continue

09/08/2017

The Space Weather Prediction Center (SWPC) said today that G4 (Severe) geomagnetic storm levels were observed at 2350 UTC on September 7 and again at 0151 UTC and 1304 UTC on September 8, due to the effects of a coronal mass ejection (CME). A G3 (Strong) or greater warning was in effect until 1500 UTC today.

Solar flares have adversely affected HF nets attempting to gather information on the three current active hurricanes.

A G4 storm can cause widespread voltage-control problems, and some protective systems may mistakenly trip out key assets from the power grid. HF radio propagation will be sporadic, satellite navigation degraded for hours, low-frequency radio navigation disrupted, and aurora may be seen at lower-than-typical latitudes.

A S1-S2 (Minor-Moderate) solar radiation storm warning for 10 MeV protons was extended and is now in effect until September 8 at 2359 UTC. An S1 or S2 solar radiation storm can have minor effects on HF propagation over polar paths.

An X-class flare (R3-strong radio blackout) occurred on September 7 at 1436 UTC. The source region for this flare was Region 2673. A narrow, slow-moving CME was observed with this event, but was determined not to have an Earth-directed component. “This region continues to produce significant flare activity,” the SWPC said.

Not All “Intruders” on Ham Bands are Illegal — But a Lot of Them Are

09/14/2017

The monthly newsletter of the International Amateur Radio Union Region 1 Monitoring Service (IARUMS) typically makes for some interesting reading. While the reports that come from more than two dozen contributors in Europe and Africa can be a bit visually dense, the content conveys the impression that that there are myriad intruders on the Amateur Radio bands. However, not all of them are illegal, as IARUMS points out, but a lot of the signals heard are not supposed to be where they were monitored. The individual reports can be a bit humorous too.

“Get the grub, and I’ll talk to you later this evening,” was a snippet of a conversation between two fishermen — identified as Mick and Jack — that an Irish Radio Transmitters Society (IRTS) monitor overheard on 3.570 MHz and reported to the IARUMS. The IRTS said the chatter was accompanied on both sides by “loud motor noise,” and, if that were not sufficient detail, it pointed out that both men had Galway accents. Intruding signals from fishing crews throughout IARU Region 1 are commonplace.

More blatant are the repeat offenders, such as the “Chinese foghorn” heard by over-the-horizon (OTH) radars on several frequencies in the exclusive Amateur Radio 20-meter allocation, as well as on 15 and 40 meters. IARUMS Region 1 Coordinator Wolf Hadel, DK2OM, said the signals, 10 kHz wide and with 50 and 66.66 sweeps per second, transmit in burst mode and often jump frequencies.

Some signals from military stations on non-exclusive Amateur Radio allocations are legal. For example, the latest IARUMS newsletter cites the Stanag-4285 military signal that showed up for a few days in August on 5,361.8 kHz. The Stanag-4285 transmissions, coming from a Navy facility in Aarhus, quit on August 28. “Many thanks to the Danish Navy for leaving this frequency!” Hadel added, noting that the Danish Navy is a primary user. “We have to respect primary users!” he said.

An Australian OTH radar “Jorn” showed up on 5,357 kHz. IARUMS noted that this is a primary user of that band.

Adding a little mystery and intrigue to the compilation was a report from a radio amateur in the UK citing a “female voice with encrypted messages” on 14.212 MHz, believed to originate with the Foreign Intelligence Service of Ukraine in Rivne.

In the “miscellaneous or bad news” category were some repeat offenders, such as Radio Hargaysa in Somalia on 7,120.0 kHz; Radio Eritrea and white noise interference from Radio Ethiopia persisting on 7,140.0 kHz and 7,180 kHz; a third harmonic of Radio Tajik on 4,765 kHz, showing up on 14,295.0 kHz; the Sound of Hope from Taiwan, transmitting on 18,080 kHz; the Russian Navy sending CW on 21,438.0 kHz, and Radio Iran “in burst mode” on 28,960.0 kHz, daily.

True intruders are those appearing on exclusive Amateur Radio frequency allocations. Some domestic Amateur Radio HF allocations outside Region 2 (the Americas), such as 7.200 to 7.300 MHz, are either shared with other services or not available to radio amateurs. Only the 7.000 to 7.200 MHz segment of 40 meters is currently allocated exclusively to the Amateur Radio Service worldwide. On other ham radio HF allocations, such as the 30-meter band, Amateur Radio is secondary to other users. However, the 20, 17, 15, 12, and 10-meter bands are exclusively available to the Amateur Radio Service worldwide.

FCC Opens 630- and 2200-Meter Bands; Stations Must Notify UTC Before Operating

09/15/2017

The FCC has announced that the Office of Management and Budget has approved, for 3 years, the information-collection requirement of the Commission's March 29 *Report and Order* (R&O) that spelled out Amateur Radio service rules for the two new bands — 630 meters and 2200 meters. Notice of the action appears in today's edition of the *Federal Register*. Before using either band, stations must notify the Utilities Technology Council (UTC), formerly the Utilities Telecom Council, that they plan to do so, and if UTC does not respond within 30 days, they may commence operation.

Last March 27, the FCC adopted the 2012 World Radiocommunication Conference (WRC-12) implementation Report and Order (ET Docket 15-99), amending its Amateur Radio rules to — in the FCC's words — "provide for frequency-sharing requirements in the 135.7-137.8 kHz (2200-meter) and 472-479 kHz (630-meter) bands."

Section 97.313(g)(2) of those rules requires that, prior to starting operation in either band, radio amateurs must notify UTC that they intend operate by submitting their call signs, intended band(s) of operation, and the coordinates of their antenna's fixed location. The new rules do not permit any mobile operation.

"Amateur stations will be permitted to commence operations after a 30-day period, unless UTC notifies the station that its fixed location is located within 1 kilometer of Power Line Carrier (PLC) systems operating on the same or overlapping frequencies," the FCC said. PLC systems are unlicensed. "This notification process will ensure that amateur stations seeking to operate [on 630 or 2200 meters] are located beyond a minimum separation distance from PLC transmission lines, which will help ensure the compatibility and coexistence of amateur and PLC operations, and promote shared use of the bands."

The FCC announced that it is making effective immediately the Part 97 rule amendments, § 97.3, 97.15(c), 97.301(b) through (d), 97.303(g), 97.305(c), and 97.313(k) and (l), which do not require OMB approval

https://utc.org/plc-database-amateur-notification-process/

IARU Administrative Council Considers New Radio Spectrum Pollution Threat

09/18/2017

The Administrative Council (AC) of the International Amateur Radio Union (IARU) believes high-power wireless power transfer (WPT) for electric vehicles has significant potential for interference with radio communication. That assessment came as the AC met on September 15 and 16 in Landshut, Germany, immediately prior to the IARU Region 1 Conference, to review its priorities and positions with regard to the 2019 World Radiocommunication Conference (WRC-19). Conference Agenda Item 9.1.6 would call for studies in advance of WRC-23 to assess the impact of WPT for electric vehicles on radiocommunication services and to study suitable harmonized frequency ranges to minimize its impact. The AC determined that addressing the threat requires an increased commitment of resources by potentially affected radiocommunication services, including Amateur Radio.

The WPT issue came up earlier this month at the meeting of CEPT WRC Project Team D, held in Vilnius, Lithuania, the week of September 11. At that gathering, IARU addressed the impact of spurious emissions from proposed high-power WPT systems for electric vehicles. IARU has expressed concern that current spurious emissions limits are not fit for this purpose in residential environments, and the potential impact on both Amateur Radio and broadcast reception is severe.

As the ITU explained in its August 2016 report, "Applications of wireless power transmission via radio frequency beam," WPT technology is considered a game-changer. "We will be able to become free from lacking electric power when electric power will be supplied wirelessly," the report said. WPT vehicle applications typically use frequencies in the LF and MF range.

In other matters, the AC reviewed the results of its first year following a "matrix approach" to WRC preparation. The matrix approach is designed to ensure effective coordination among the IARU volunteers who are participating in and monitoring the preparatory meetings of the ITU and regional telecommunications organizations. In addition to WPT, the WRC-19 agenda includes several other items of potential concern to radio amateurs and a possible allocation in Region 1

of 50–54 MHz to the Amateur Service to harmonize with the allocations in the other two International Telecommunication Union (ITU) regions.

Delegates reviewed and updated the strategic plan to develop support for amateur spectrum allocations in 2016–2020, and they approved action plan for the remainder of 2017 and 2018. They also reviewed and adopted the IARU 2018–2020 budget, based upon anticipated financial contributions from the IARU International Secretariat and the three regional organizations. The budget adopted reflects ongoing efforts to minimize expenses.

Regional representatives on the AC reported progress in their areas, including the successful Amateur Radio Administration Course, a course attended by administrators from several Latin American countries that was offered earlier this year in Mexico City.

Delegates initiated the consultative process between the International Secretariat and the AC, leading to the nomination of the candidates for IARU President and Vice President for the 5-year term beginning in 2019. Member societies will have the opportunity to put forth candidates in early 2018. They also noted progress toward improving the consistency of IARU "branding" and approved a plan for achieving consistent design across the global and regional IARU websites.

Other Business

> Tore Worren, LA9QL, was appointed as EMC Coordinator, replacing Thilo Kootz, DL9KCE, who has had to step down because of a change in employment.
>
> The AC received an interim report from the Working Group on Propagation. The group is studying developments in technology related to radio propagation observations.
>
> An extensive review of AC resolutions and policies was conducted, leading to the suppression of obsolete resolutions and the updating of other resolutions and policies.
>
> Progress toward the registration of the IARU as a corporate entity was reviewed, and further steps were authorized.
>
> The theme for the next World Amateur Radio Day, April 18, 2018, was confirmed as "Celebrating Amateur Radio's Contribution to Society." An effort will be made to share material among member societies to assist them in observing the day.
>
> The AC also approved a transition from paper to electronic certificates for participants in the IARU HF Championship.

The AC is responsible for the policy and management of the IARU. It consists of the three IARU international officers and two representatives from each of the three IARU regional organizations.

Attending the meeting were IARU President Tim Ellam, VE6SH/G4HUA; Vice President Ole Garpestad, LA2RR; Secretary David Sumner, K1ZZ; regional representatives Don Beattie, G3BJ; Faisal Al-Ajmi, 9K2RR; Reinaldo Leandro, YV5AM; Ramón Santoyo, XE1KK; Gopal Madhavan, VU2GMN, and Peter Young, VK3MV. Dave Court, EI3IO, from Region 1 was present as an observer on the second day of the meeting.

The AC won't meet again in person until next September, but virtual meetings will be conducted by teleconference as needed in the interim.

HamSCI Presents Initial Eclipse Results at ARRL-TAPR Digital Communications Conference

09/19/2017

At the 36th annual ARRL and TAPR Digital Communications Conference (DCC), held September 15–17 this year in St. Louis, HamSCI members presented preliminary evidence that the August 21 solar eclipse had a significant effect on HF propagation. The DCC is geared toward technically minded Amateur Radio operators who specialize in building and designing hardware and software to support digital communication and radio.

In their presentation, "HamSCI and the 2017 Total Solar Eclipse," HamSCI members Nathaniel Frissell, W2NAF; Bill Engelke, AB4EJ; Josh Katz, KD2JAO; Spencer Gunning, K2AEM, and Josh Vega, WB2JSV showed initial results of the Solar Eclipse QSO Party and other HamSCI eclipse experiments. Their presentation demonstrated that the number of 14-MHz Reverse Beacon Network (RBN) spots decreased, while the number of 1.8- MHz and 3.5-MHz spots increased during the eclipse totality. The HamSCI researchers say this suggests a decrease in both maximum usable frequency and D-layer absorption during the eclipse.

John Ackermann, N8UR, described his work in making wideband recordings during the eclipse in his presentation, "How to Fill a Terabyte Disk: Using Software Defined Radios in the HamSCI Solar Eclipse Experiment."

In addition to the conference presentation, three New Jersey Institute of Technology (NJIT) HamSCI papers were included in the conference *Proceedings*. "HamSCI and the 2017 Total Solar Eclipse" by Frissell et al. details the procedures for the HamSCI eclipse experiments. "The H.A.R.C. Database and Visualization Utilities" by Katz et al. describes a database for unifying RBN, PSKReporter, WSPRNet, and other Amateur Radio propagation data in one place for research purposes. *Vega's "*Developing a Solar Eclipse Simulation for Greater Good*"* describes how to simulate the SEQP using the PHaRLAP raytracing toolkit and SAMI3 model of the eclipsed ionosphere.

HamSCI team members announced that the HamSCI Workshop will be held at NJIT in Newark February 23–24. The workshop will be open to public and will focus on ham radio eclipse data analysis and the development of a personal space-weather station.

The NJIT HamSCI team expressed its appreciation to TAPR and TAPR member David Bern, W2LNX, for supporting student attendance at the workshop.

Rockwell Collins Sold to United Technologies

09/19/2017

United Technologies has acquired avionics maker Rockwell Collins in a $30-billion deal. United Technologies said it wants to further enhance its role in aviation for both its military and commercial customers in the area of new aircraft connectivity systems.

Collins Radio and later Rockwell Collins for many years manufactured top-tier Amateur Radio equipment. Art Collins, W0CXX, founded Collins Radio Company in 1933. The Cedar Rapids, Iowa-based firm initially built shortwave and AM broadcasting gear as well as the military and scientific communities, and Collins provided the radio equipment to keep in touch with Admiral Richard Byrd's South Pole Expedition in 1933.

During World War II, Collins became the principal supplier of military radio and navigation equipment, and Collins later produced Amateur Radio equipment and provided communication gear for early NASA missions.

Collins Radio Company was purchased by Rockwell International in 1973. In 2001, the avionics division of Rockwell International was spun off to form Rockwell Collins. In its Amateur Radio heyday, the Collins S-Line was considered the king of the hill. Vintage Collins gear remains popular, and Collins mechanical filters are still widely used.

IARU President: Traditional Aspects of Ham Radio May Not Be Attractive to Newcomers

09/28/2017

The 24th General Conference of International Amateur Radio Union Region 1 (IARU-R1) convened September 17 – 23 in Landshut, Germany, with representatives of 40 member-societies present and another 13 represented by proxy. IARU President Tim Ellam, VE6SH/G4HUA, welcomed the attendees, urging them to reflect upon what will attract the majority of young people into Amateur Radio, "and what our mutual expectations should be." Ellam said his personal observation is that, while some younger people are interested in the more traditional aspects of Amateur Radio, many are only interested in ham radio as an adjunct to other possibly unrelated interests.

"I applaud the excellent work that has been undertaken in this region through the Youngsters on the Air (YOTA) program." Tim said, crediting the hard work of IARU Region 1 Youth Working Group Chair Lisa Leenders, PA2LS. YOTA's summer Amateur Radio camps have attracted young hams from around the world; this year's was held in the UK.

"Our ambition should be to embrace these individuals in their activities and accept that some of the more traditional aspects of the hobby will hold little interest to them, and indeed may no longer be relevant," he continued. "That is not to say that some are not enthused with what we all hold as the core of our hobby, such as contesting or operating generally. I fear, though, that we need to look at what will attract the new generations to Amateur Radio and make sure we promote Amateur Radio as meeting their needs, rather than promoting the historical view of what Amateur Radio has to offer."

Delegates to the plenary adopted a proposal that all IARU bodies and member-societies use every opportunity to exert pressure on national regulators to implement all the recommendations that protect the amateur bands.

They also approved initiating a simple noise-measuring campaign among Region 1 member-societies, giving IARU the ability to offer an independent opinion on the noise situation in the bands and the trends over time. Brendan Minish, EI6IZ, was appointed to chair the Noise Measuring Campaign Sub-Working Group.

Region 1's highest recognition, the Roy Stevens, G2BVN, Memorial Trophy, was conferred upon Colin Thomas, G3PSM, for his outstanding contribution to Amateur Radio and the work of the IARU over several decades.

A new Executive Committee was elected during the General Conference's Final Plenary. Chosen to serve as EC officers for 2017 to 2020 were President Don Beattie, G3BJ; Vice President Faisal Al-Ajmi, 9K2RR; Secretary Hans Blondeel Timmerman, PB2T, and Treasurer Andreas Thiemann, HB9JOE. EC members will be Sylvain Azarian, F4GKR; Alessandro Carletti, IV3KKW; Mats Espling, SM6EAN; Joerg Jaehrig, DJ3HW, and Oliver Tabakovski, Z32TO. Their terms will begin on October 31.

The Deutsche Amateur Radio Club (DARC) was the host for the conference, which is held every 3 years. The full Conference Report is available on the IARU Region 1 website. The 25th IARU Region 1 General Conference will take place in September 2020 in Novi Sad, Serbia.

FCC Grants Temporary Waiver to Permit Higher Symbol Rate Data Transmissions

10/05/2017

The FCC has granted an ARRL request to waive current Amateur Radio rules to permit data transmissions at a higher symbol rate than currently permitted, in order to facilitate hurricane relief communications between the continental US and Puerto Rico. The temporary waiver is limited to Amateur Radio operators in Puerto Rico using PACTOR 3 and PACTOR 4 emissions, and to those radio amateurs in the continental US who are directly involved with HF hurricane relief communications involving Puerto Rico or the US Virgin Islands, the Commission said.

"We conclude that granting the requested waiver is in the public interest," the FCC said in its October 5 *Order*. "Hurricane Maria caused massive destruction in Puerto Rico, and communication services continue to be disrupted. Thus, to accommodate Amateur Radio operators assisting in the recovery efforts, we grant the ARRL's waiver request for the period of 60 days from the date of this *Order*."

ARRL explained in its waiver petition that it's shipping five PACTOR radio modems to Puerto Rico for use in connection with Hurricane Maria disaster relief communications. The League asked the FCC to temporarily allow PACTOR 3 and PACTOR 4 transmissions that exceed the current symbol rate limitations under § 97.307(f) of the Amateur Service rules.

Under the current rules, "specified digital codes" in Part 97 may be used with a symbol rate that does not exceed 300 baud for frequencies below 28 MHz, with the exception of 60 meters, and 1200 baud in the 10 meter band. The baud rate limits were adopted in 1980, when the FCC amended Part 97 to specify ASCII as a permissible digital code.

ARISS Moves One Step Closer to Flying New Ham Equipment to ISS

10/03/2017

Amateur Radio on the International Space Station (ARISS) International Chair Frank Bauer, KA3HDO, has announced that his program has submitted its Interoperable Radio System (IORS) flight safety data package to NASA for review. ARISS has been developing the IORS to replace most of the Amateur Radio hardware that's now on the space station. It is called "interoperable" because it's designed to operate anywhere on the ISS. A NASA flight safety review in about a month is the next step. Bauer said he was highlighting the accomplishment because all the work on the safety data submission was developed exclusively by ARISS volunteers, rather than NASA or other contractors, as had been done in the past. It also meant a substantial saving to ARISS, which has become more reliant on donations in recent years.

"This is a very major IORS milestone," Bauer said. "We cannot get [the new equipment] to orbit without successfully completing the safety review process and getting our hardware certified for flight."

Bauer said having the work done by volunteers not only was "innovative and gutsy," but will shorten the timeline involved to get the new Amateur Radio hardware on board the International Space Station. "Otherwise, we probably would have to slip launch 1 – 2 years while we acquired additional funding to get this done," Bauer said.

He explained that the material turned in for NASA Human Spaceflight Safety Certification covers the first three phases of a four-phase process. The initial steps in the process are aimed at ensuring that NASA understands the design, demonstrating that ARISS understands the potential hazards that the new hardware systems could introduce, and how it has mitigated or prevented them.

"One example is to demonstrate to NASA that our IORS was designed with electrical wiring and circuit breakers that possess adequate features and sufficient margin to prevent an electrical shock or fire on board the ISS," said Bauer, who previously worked for NASA. "Critically important stuff!"

The final phase will be complete when ARISS has finished all testing and NASA deems the hardware flight worthy. ARISS is hoping that will happen next spring.

The new hardware will be used in the two areas of the ISS that have legacy Amateur Radio antennas — the *Columbus* module and the Russian Service Module. "Interoperability allows us to leverage existing ISS power cables, move it between modules in the event of on-orbit failures, and use it to support common training and operations," Bauer said.

"The IORS is the most complex in-cabin hardware system we have ever designed, built, tested, and flown as a volunteer team," Bauer continued. "We will remove the 3-W Ericsson handheld radio system, initially certified for flight in 1999, and the packet module — both of which have recently had issues — and install a brand-new, specially modified 25-W JVC Kenwood TM-D710GA radio to enable a multitude of new or improved capabilities on ISS, including voice repeater and better APRS operations."

A key development, Bauer explained, is the multi-voltage power supply (MVPS), which interfaces with multiple electrical outlet connector types on the station and provides a range of power output capabilities for current and future ARISS operations and Amateur Radio experiments. It will also allow the ham video (HamTV) digital Amateur Radio TV (DATV) system to have its own power outlet instead of having to share, something that occasionally shuts down the DATV system.

Bauer praised the IORS development team, which includes Chief Engineer Lou McFadin, W5DID; lead MVPS designer Kerry Banke, N6IZW; the MVPS lead designer; MVPS Mechanical enclosure designer Bob Davis, KF4KSS; Ed Krome, K9EK; Dave Taylor, W8AAS; Bob Bruninga, WB4APR; Shin Aota, JL1IBD; Phil Parton, N4DRO, of JVC Kenwood; Operations Lead Kenneth Ransom, N5VHO, and safety package team Ken Ernandes, N2WWD, and Gordon Scannell, KD8COJ.

"Designing, building, and testing the IORS is a huge undertaking and *very* expensive," Bauer said. That's at least due in part to the fact that ARISS must build 10 duplicate units to support flight hardware and spares, testing, and training. "Hardware parts, development tools, fabrication, testing, and expenses to certify the IORS are expected to cost approximately $150,000," said Bauer. "And the hard part — that is, the most expensive part — is just now starting."

ARISS invites contributions to help cover the expenses of its work. All donations go directly to ARISS.

US Senate Confirms FCC Chairman Ajit Pai for a Second Term

10/03/2017

In a mostly party-line vote, the US Senate on October 2 confirmed FCC Chairman Ajit Pai for a second term on the Commission. Pai would have had to leave the FCC at the end of the year, had he not been reconfirmed.

President Donald Trump nominated Pai for a new term in January; his previous term as a commissioner had expired on July 1, 2016, and his new term is retroactive to that date. FCC rules permitted him to remain until the end of 2016.

The final tally was 52-41, although he picked up votes from four Democratic senators.

"I am deeply grateful to the US Senate for confirming my nomination to serve a second term at the FCC and to President Trump for submitting that nomination to the Senate," Pai said in a statement. "Since January, the Commission has focused on bridging the digital divide, promoting innovation, protecting consumers and public safety, and making the FCC more open and transparent. With today's vote, I look forward to continuing to work with my colleagues to advance these critical priorities in the time to come."

Pai has primarily drawn fire for his opposition to so-called "net neutrality" rules. All five members of the FCC must be confirmed by the Senate, but the president chooses which will serve as the chairman.